

STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

Illinois Commerce Commission	:	
On Its Own Motion	:	
-vs-	:	
The Peoples Gas Light and Coke Company	:	
	:	
Investigation of the cost, scope, schedule	:	16-0376
and other issues related to the Peoples Gas	:	
Light and Coke Company's natural gas	:	
system modernization program and the	:	
establishment of Program policies and	:	
practices pursuant to Sections 8-501 and	:	
10-101 of the Public Utilities Act.	:	

ORDER

January 10, 2018

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ORDER

By the Commission:

I. INTRODUCTION / BACKGROUND

On December 16, 2015, the Illinois Commerce Commission ("Commission") directed Commission Staff ("Staff") to organize a series of workshops between Staff, The Peoples Gas Light and Coke Company ("Peoples Gas", "PGL" or the "Company"), and various stakeholders regarding Peoples Gas' System Modernization Program ("SMP"), which concerns Peoples Gas' efforts to accelerate the replacement of at-risk components of its gas delivery system. Between January 14, 2016 and March 22, 2016, Staff convened a series of six workshops, during which Peoples Gas provided information to Staff and other participants on the program, its goals, and progress to date. The workshops were attended by Staff, the Illinois Attorney General's Office ("AG"), the Citizens Utility Board ("CUB"), the City of Chicago ("City"), Utility Workers Local 18007 ("Local 18007"), the Illinois Industrial Energy Consumers, and Peoples Gas. Additionally, representatives from the New York State Department of Public Service, who have addressed issues regarding similar main replacement programs in that state, and the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration ("PHMSA") attended the workshops to offer their perspective and further educate the participants. On May 31, 2016, Staff issued a report to the Commission that summarized the workshop participants' positions on issues covered during the workshops and recommended that the Commission initiate a docketed proceeding to resolve issues on which consensus was not achieved.

On July 20, 2016, the Commission issued an Initiating and Interim Order opening this docket concerning the SMP's cost, schedule, and scope. The Commission's Order also directed Peoples Gas to file a preliminary report followed by monthly reports

containing information about SMP work performed in 2016 (e.g., number of miles of main installed, cost of main installed).

Appearances or petitions to intervene were filed by Peoples Gas, the AG, CUB, the City, and Local 18007. Staff actively participated in the proceeding.

On August 19, 2016, Peoples Gas filed its Preliminary Report, as required by the Commission in its Initiating and Interim Order. On August 30, 2016, September 30, 2016, and October 30, 2016, Peoples Gas filed Month-End Reports, as directed by the Commission.

On August 19, 2016, Peoples Gas filed the direct testimony of Andrew J. Hesselbach. On October 11, 2016, Staff and Intervenors filed the following direct testimony: Staff witnesses Eric Lounsberry, Brett Seagle, and Gene Beyer; AG witnesses Sebastian Coppola and Allen R. Neale; CUB witnesses Virginia E. Palacios and Joseph C. von Fischer; the City of Chicago and CUB ("City-CUB"), jointly, witness William Cheaks Jr.; and Local 18007 witness Richard Passarelli. On October 24, 2016, Peoples Gas filed rebuttal testimony of Mr. Hesselbach, Debra E. Egelhoff and Mark Kinzle.

On August 5, 2016, the AG filed a Verified Motion Requiring Peoples Gas to Commission an Independent Engineering Study of the SMP. On August 17, 2016, the Administrative Law Judge ("ALJ") denied the AG's motion. On September 9, 2016, CUB filed a Verified Motion to Compel Discovery Response from Peoples Gas to produce digital files that map out the locations of Peoples Gas' gas mains and other distribution facilities. On September 16, 2016, the ALJ denied CUB's motion.

Pursuant to due notice, hearings were held in this matter on August 2, 2016, October 31, 2016, November 1, 2016, and November 2, 2016 before the ALJ at the Commission's offices in Chicago, Illinois. At the evidentiary hearings on November 1, 2016 and November 2, 2016, Staff, the AG, CUB, the City, Local 18007, and Peoples Gas entered appearances. All of the testimony and exhibits presented, including certain cross-examination exhibits were admitted into the record.

On November 14, 2016, Staff, the AG, CUB, the City, Local 18007, and Peoples Gas filed Initial Briefs. On November 21, 2016, Staff, the AG, CUB, the City, and Peoples Gas filed Reply Briefs. On November 22, 2016, Staff, Peoples Gas, the AG and CUB filed draft orders or position statements.

On December 14, 2016, the ALJ marked the record "Heard and Taken."

The Commission initiated a second phase of this docket in a March 1, 2017 Order Directing Additional Hearings. This Order directed the ALJ to reopen the proceedings for additional testimony and briefing questions contained within the Order itself and in a May 31, 2016 Staff Report. As was the case during the first phase of the docket, Peoples Gas, Staff, the AG, CUB, the City and Local 18007 all participated in the second phase.

On May 10, 2017, Peoples Gas filed the direct testimony of Andrew J. Hesselbach and Gregg Therrien. On June 14, 2017, Staff and Intervenors filed the following direct testimony: Staff witnesses Eric Lounsberry, Brett Seagle and Diana Trost; AG witnesses Sebastian Coppola, Allen Neale and Roger Colton; CUB witness Virginia Palacios; the City witness William Cheaks Jr.

On June 30, 2017, Peoples Gas filed the rebuttal testimony of Andrew J. Hesselbach, Gregg Therrien, Debra E. Egelhoff and Mark Kinzle. On July 18, 2017, Staff and Intervenor filed the following direct testimony: Staff witnesses Eric Lounsberry and Brett Seagle; AG witnesses Sebastian Coppola, Allen Neale, and Roger Colton; CUB witness Virginia Palacios; the City witnesses Michael Simon and Michael Gorman.

On July 27, 2017, Peoples Gas filed the surrebuttal testimony of Andrew J. Hesselbach, Gregg Therrien, Debra E. Egelhoff and Mark Kinzle.

On June 7, 2017, the AG filed a motion to compel Peoples Gas to create an analysis correlating savings on the SMP with six categories of potential savings contained in a 2015 report authored by Burns & McDonnell. On June 9, 2017, Peoples Gas filed a response to the motion. On June 12, 2017, the AG filed a reply. On June 13, 2017, the ALJ denied the AG's motion.

Pursuant to due notice, hearings were held on March 22, 2017, March 30, 2017, August 9, 2017, and August 10, 2017.

At the evidentiary hearings on August 9, 2017, and August 10, 2017, Staff, the AG, CUB, the City, Local 18007, and Peoples Gas entered appearances. All of the testimony and exhibits presented, including certain cross-examination exhibits, were admitted into the record.

On August 10, 2017, the Sargent Shriver Center National Center on Poverty Law ("Sargent Shriver") filed a petition to intervene. The ALJ granted Sargent Shriver's petition on August 23, 2017.

On September 22, 2017, Staff, the AG, CUB, the City, Sargent Shriver, and Peoples Gas filed Initial Briefs.

On October 6, 2017, Staff, the AG, CUB, the City, and Peoples Gas filed Reply Briefs.

On October 17, 2017, Peoples Gas, the City, the AG, CUB and Staff filed draft proposed orders or position statements.

On December 12, 2017, the ALJ marked the record for the second phase of the docket "Heard and Taken."

On January 5, 2018, Staff, the AG, CUB, the City and Peoples Gas filed Briefs on Exceptions. All of the Briefs on Exceptions were taken into account in the Final Order.

II. PROGRAM DEFINITION

A. Purpose of Program

1. Peoples Gas' Position

According to Peoples Gas, the fundamental purpose of the SMP is to accelerate the pace of replacing aging, at-risk components of Peoples Gas' natural gas delivery system. PGL Ex. 1.0R at 6. This effort began with the Accelerated Main Replacement Program ("AMRP") in 2011 and will continue under the SMP. *Id.* Accelerated replacement of at-risk pipe is consistent with PHMSA's 2011 "Call to Action." Staff Report at Appendix F. The Call to Action asks pipeline companies and state regulators to "accelerate the

repair, rehabilitation, and replacement of the highest-risk pipeline infrastructure.” *Id.* at 7. The SMP also responds to the Commission’s directive to move customer meters outside or to an accessible indoor location and upgrade the system to medium pressure. *Id.*

2. Staff’s Position

Staff agrees with the Company that the primary purpose of the program is to establish and carry out an accelerated plan for natural gas system improvements focusing on the replacement of at-risk or leak-prone facilities. PGL Ex. 1.0R at 6. Staff concludes that the Company’s proposed rolling three-year program properly emphasizes safety, reliability and a focus on at-risk facilities. Staff Ex. 3.0 at 7.

3. AG’s Position

The AG states that the purpose of Peoples Gas’ main replacement program is a fundamental issue in this case. The AG notes that when Peoples Gas first received approval from the Commission to implement what was then called the AMRP, the Commission made clear that the safety of the system was paramount. In describing the different positions regarding the then-state of the system, the Commission described Peoples Gas’ system as old, antiquated and approaching the point where further aging will become an emergency matter rather than one which can reasonably be planned and executed. *North Shore Gas Company/The Peoples Gas Light and Coke Company*, Docket Nos. 09-0166/09-0167 (Cons.), Order at 193 (Jan. 10, 2010).

Although the AG agrees that Peoples Gas should remove the vulnerable CI/DI from its distribution system, there is no empirical evidence in the record showing that annual spending of \$300 million on PGL’s proposed SMP provides any greater level of safety than the AG’s approach, which better prioritizes replacement of the riskiest mains and at a pace that is more affordable to PGL customers.

As AG witness Coppola testified, PGL is already removing the most dangerous segments of CI/DI mains and services outside of the Neighborhood Program on an expedited basis. Through the System Improvement program, the Company replaces those pipes with Class 1 and 2 Leak designations within approximately 12 months of when leaks occur. PGL also replaces CI/DI pipes with a Uniform Main Ranking Index (“UMRI”) score of 6 or higher and a score of 5 in high-consequence areas (i.e. schools and hospitals) within 12 months from determination of such high-risk situations.

In addition, the Company replaces at-risk CI/DI mains and services, and relocates meters outside of the planned Neighborhood approach through the Public Improvement program as the City of Chicago and other utilities undertake infrastructure upgrades in those areas where the Company still has vulnerable pipes.

As shown in PGL Ex. 5.3, on an annual basis from 2017 to 2020, the Company expects to replace between 15 to 17 miles of CI/DI mains, 1,500 to 2,100 services and relocate between 3,000 to 3,380 meters by incurring between \$32 million to \$36 million in capital spending for Public Improvement and System Improvement programs outside of its Neighborhood Program. The point is, regardless of the Plan approved, the Company

is obligated to and will continue to replace main deemed most vulnerable in its internal rankings.

PGL and Staff frequently cite the March 28, 2011 PHMSA Call to Action as the primary basis for their respective recommendations that the SMP be completed as soon as possible. However, PHMSA's Call to Action was not a mandate that at-risk pipe be removed as fast as possible, and certainly not regardless of cost. More specifically, nor was it a directive that vulnerable mains be removed as fast as possible without considering whether doing so would raise significant health- and safety-related problems for utility customers that can no longer afford natural gas service due to the extreme rate impacts that main replacement programs might cause. Following its Call to Action, PHMSA issued Advisory Bulletin ADB-2012-05 in the Federal Register on March 23, 2012. The Advisory Bulletin states in relevant part:

PHMSA urges owners and operators to conduct a comprehensive review of their cast iron distribution pipeline systems and replacement programs and to accelerate pipeline repair, rehabilitation, and replacement of aging and high-risk pipe.

PHMSA's Advisory Bulletin is consistent with its Call to Action in that it does not require gas utilities to remove vulnerable pipe as fast as practicable.

Moreover, in testimony, PGL witness Hesselbach referred to the utility's "engineering judgment" as the basis for PGL's preferred end date for the program. Although engineering judgment is important for the implementation of the SMP and the maintenance of Peoples Gas' distribution system, it is not empirical evidence that any of the utility's mains are in danger of failing without an annual investment of some \$300 million per year on an SMP that the substantial evidence in the record shows is not as focused on targeting the most vulnerable main as compared with the AG proposed approach and pace to main replacement.

4. CUB's Position

CUB points out that Peoples Gas witness Hesselbach claims the purpose of the SMP is "a systematic multi-year approach to monitoring, ranking, and determining which system components are most at risk, and then prioritizing work to focus on those components." PGL Ex. 1.0R at 13. Peoples Gas witness Kinzle acknowledged on cross-examination, however, that the neighborhood approach does not focus only on repairing hazardous leaks. Tr. at 87. CUB identifies several other components of the program that have little to nothing to do with repairing hazardous leaks.

CUB agrees with Staff that safety is, or should be, the foremost and basic consideration in the design of the SMP. Staff Ex. 3.0 at 9. CUB supports Staff's suggestion that further considerations should be taken into account concerning enhancement of system reliability, cost, rate impacts, customer affordability, the schedule and pace of SMP, coordination with the City and other entities, and whether there is a need for independent engineering studies. *Id.*

CUB observes that Mr. Hesselbach claims that after Wisconsin Energy Corporation (“WEC”) acquired Integrys in June 2015, Peoples Gas’ new management took a fresh look at the existing program and developed a new approach to executing the necessary system modernization. PGL Ex. 1.0 at 13. According to CUB, this pledge, however, unfortunately appears to have fallen short of its goal, as attested by City-CUB witness Cheaks.

5. City’s Position

The City states that the accelerated asset replacement of Peoples Gas’ original AMRP was a direct response to PHMSA’s Call to Action. Staff Report at Appendix F. Its purpose was to reduce safety and reliability risks traceable to identified vulnerable gas mains types. Absent a fundamental redefinition of the purpose and scope of the program, the City claims that this tie to safety and reliability must be evident for any element of the accelerated program.

The City observes, however, that Peoples Gas’ redefined/renamed SMP encompasses the AMRP’s scope, but also encompasses other categories of plant investment that can be recovered under Peoples Gas’ Rider Qualifying Infrastructure Plant (“QIP”). According to the City, the SMP’s focused objective of replacing Peoples Gas’ riskiest pipes does not appear to be the only driver of the reconstituted infrastructure program. PGL Ex. 1.0R at 3 (n.1) and 13. Clear distinctions that separate Peoples Gas’ risk-focused accelerated investment from its other activities are essential. In its audit of Peoples Gas’ original AMRP, Liberty Consulting Inc. (“Liberty”) recommended that Peoples Gas disaggregate AMRP information and reports from other activities covered by Rider QIP. City-CUB Ex. 1.5 at V-10.

6. Phase II

- a. What main replacement program is needed for safe, reliable, least cost service? Has Peoples Gas demonstrated that customer rates must increase to complete the program?**

(i) Peoples Gas’ Position

Peoples Gas explains that, throughout this case, Peoples Gas, Staff, and intervenors have presented various visions for the SMP, but all agree on one fundamental thing: it is critically important to ensure that Chicagoans are served by a safe natural gas delivery system. City witness Mr. Gorman summarized this concept:

Of paramount importance, consistent with [Peoples Gas’] recommendation . . . needs to be system safety. Where it is necessary to remove pipes with an unacceptable level of risk, the importance of replacing those pipes to protect the public safety needs to receive highest priority in the SMP planning process. I do not believe any party disputes this point.

City Ex. 5.0 at 8. There is widespread agreement among many of the parties on the broad outlines of how to accomplish this task, and Peoples Gas and Staff, through the give and

take of multiple rounds of testimony, hearings and briefing, have reached essentially complete alignment on a path forward with a few exceptions as discussed below.

Peoples Gas' proposed SMP best accomplishes the statutory requirement for the Company to provide safe, reliable, least cost service. PGL Ex. 5.0 at 46-47. The SMP's principal goal is to deliver a safer and more reliable system in a cost-effective manner. *Id.* The SMP is being planned and implemented on a rolling three-year basis, allowing for the flexibility to adapt to annual reprioritization of the highest-risk pipe and neighborhoods as well as changes in technology, regulation and third parties' infrastructure plans. *Id.* at 20, 22. Peoples Gas' approach ranks Chicago's neighborhoods by the condition and riskiness of their natural gas facilities and then addresses the riskiest neighborhoods first. By adopting a neighborhood-based approach, Peoples Gas is minimizing the cost of the project and the disruption to Chicago streets and neighborhoods. *Id.* at 11-13, 46-47. At the same time, Peoples Gas addresses the most at-risk pipe segments wherever they exist in the City and coordinates with other stakeholders to complete natural gas system upgrades at the same time as other public works projects are being completed, reducing disruption to Chicago's streets and residents. *Id.* at 14. Peoples Gas also proposes to extend the program from 2030 to 2035-2040 to address concerns over the future costs of the program without unreasonably compromising system safety. *Id.* at 34-35. Finally, in conjunction with Staff, Peoples Gas proposes a comprehensive set of reporting metrics that will give the Commission insight into whether the SMP is on pace and is being executed effectively. *Id.* at 53-56; PGL Ex. 7.0 at 11-12; PGL Ex. 11.0 at 13-14.

(ii) Staff's Position

Mr. Hesselbach testified that Peoples Gas is required by law to provide safe, reliable, efficient and least-cost utility service. PGL Ex. 5.0 at 46. Staff noted that "least-cost" in this context does not necessarily mean "the most simple, basic and cheapest form of service" but questioned the Company's suggestion that a least-cost analysis required a balancing of overall cost and externalities against the benefits. Staff Ex. 4.0 at 21. Mr. Hesselbach agreed with Staff that "least cost" must be evaluated in terms of the purpose to be achieved and clarified that "least cost" requires the Commission to consider the benefits of a project and weigh those against the costs to achieve those benefits. PGL Ex. 5.0 at 10. The Commission weighs the benefits of a project against the cost to achieve those benefits, with the expectation that costs for capital projects will be recouped through Peoples Gas' QIP Rider. The issue of whether the SMP is "least cost" as used in this context will be addressed more fully in annual QIP Rider reconciliations, in which Peoples Gas must demonstrate that the actual costs associated with SMP are both reasonable and prudently incurred before those costs can be recouped from ratepayers.

Staff offered no testimony on whether Peoples Gas has demonstrated that customer rates must increase to complete the program. As set forth more fully below in Section V.B.5.c, Staff draws a distinction between the "affordability" of a program and "rate impacts." Staff notes that the issue of affordability is resolved as a matter of statute.

(iii) AG's Position

The AG argues that Peoples Gas asserted that its neighborhood approach addresses the riskiest neighborhoods first by ranking the condition and riskiness of Chicago's various neighborhoods. According to the AG, Peoples Gas' main replacement program rate impact analysis is skewed and misleading.

The AG notes that PGL asserted that the AG or any other party has shown that the AG's alternative spending proposals, which would result in a later completion date for the program, sufficiently mitigate risks for Chicago residents. The AG notes that there is no evidence showing that Peoples Gas' proposed spending level and resulting end date provides any greater level of safety than the AG's recommendations. Moreover, the AG argues that there is extensive evidence that the Company's suggested spending levels will put many thousands of customers at risk of being unable to afford essential natural gas service. Large numbers of customer disconnections present critical health and safety risks that are no less serious than the risks posed by vulnerable main in Peoples Gas's distribution system.

7. Commission Analysis and Conclusion

The Commission must determine what main replacement program is needed to carry out an accelerated plan for improving the natural gas system and replacing at-risk or leak prone facilities for Peoples Gas customers. It is necessary for the Commission to look at not only the purpose to be achieved, but also the costs of the overall program. Peoples Gas points out that the SMP allows the Company some flexibility to adapt to reprioritization of the highest risk pipes as well as changes in technology, regulation and other infrastructure plans. Peoples Gas' proposed SMP also allows the Company to work with the City in coordinating this project to have as minimal impact on the neighborhoods by reducing disruptions of Chicago streets and to the residents. The Commission finds that the SMP as proposed by Peoples Gas is designed to provide for the directives of PHMSA's "Call to Action" to address high risk infrastructure.

While the Commission is concerned about the costs related to a project of this magnitude, the Commission agrees with Staff that the determination of the reasonableness for the related costs will be determined in the QIP reconciliations.

B. Scope of Work

1. Peoples Gas' Position

The SMP, as initially described by Peoples Gas, was divided into four categories of work: (1) the Neighborhood Replacement Program; (2) the Public Improvement/System Improvement Program ("PI/SI"); (3) the High Pressure Installation Program; and (4) Transmission Upgrades Program. PGL Ex. 1.0R at 14-15. Peoples Gas explains that these four categories of work correspond to work eligible for recovery under Rider QIP. Taken together, these categories comprise the work necessary to fully modernize Chicago's natural gas distribution system. *Id.* at 15. For purposes of clarity, the parties have referred to Peoples Gas' initial description of the SMP as the "Full SMP."

The Neighborhood Replacement Program takes a risk-ranked approach to retiring and replacing natural gas facilities that have been identified by PHMSA and the Commission as being prone to leakage on a neighborhood-by-neighborhood basis. At the same time, Peoples Gas plans to move meters outside of customers' homes and businesses and upgrade the distribution system from low to medium pressure, which will give customers greater selection in modern gas appliances and avoid the need to install pumps to increase gas pressure in institutional settings. *Id.* at 16.

Peoples Gas points out that the PI/SI is similar to the Neighborhood Replacement Program because it also replaces at-risk mains in the system. However, PI/SI projects are typically undertaken to coordinate with third parties that are either working under the streets anyway or customers that require upgrades to address capacity or reliability concerns. Peoples Gas explains that it also addresses the repair of Class 1 leaks, which are fixed immediately, since they are the most hazardous, and Class 2 leaks, which are to be fixed within one calendar year, not to exceed fifteen months under PHMSA standards. Repair of Class 1 and 2 leaks continue independent of the Neighborhood Replacement Program. *Id.*

Peoples Gas states that high pressure mains form the backbone of the natural gas delivery system and are required to ensure adequate pressure for medium pressure pipes. The High Pressure Installation Program covers not only these high pressure mains, but also related regulator stations, regulators, valves and associated facilities. *Id.* at 17.

Peoples Gas explains that the Transmission Upgrades Program is focused on replacing transmission pipelines and associated facilities that have a higher risk of leakage or failure. This Program will also establish records and maximum allowable operating pressures where such records are lacking. *Id.*

Peoples Gas agrees with and adopts Staff's preference for the proper scope of work for the SMP. Staff in its direct testimony explained that the SMP work on which the Commission and the parties should focus in this proceeding consists of: (1) the replacement of leak-prone cast iron and ductile iron ("CI/DI") pipe; (2) increasing system pressure from low to medium; and (3) relocating meters from inside to outside customers' premises. Staff Ex 2.0 at 4. Peoples Gas states that this means, practically speaking, that Staff prefers that the SMP comprise the first two categories of the Full SMP -- the Neighborhood Replacement and PI/SI Programs -- as well as high pressure main necessary to support those categories of work.

2. Staff's Position

In Staff's view, the core of Peoples Gas' SMP is the replacement of high-risk, leak-prone CI/DI pipe with new plastic pipe. Staff understands Peoples Gas' broader approach to system modernization to include the conversion of its natural gas system from low to medium pressure and the relocation of meters located inside customer buildings to outside those buildings. In Staff's opinion, the Company satisfactorily describes the efficiencies and economies that are likely to be realized by performing these other modernization activities concurrently with the replacement of at-risk facilities. Staff Ex.

3.0 at 8. Accordingly, Staff considers their inclusion within the scope of SMP to be appropriate.

Staff notes that it appears that Peoples Gas accepts its position regarding the proper scope of SMP. See PGL Ex. 2.0 at 3 (“[PGL] accepts Staff witness Seagle’s proposal to define the scope of SMP as the three categories of work he has specified.”). Accordingly, it is Staff’s view that the scope of SMP should be defined as including: (1) the replacement of leak-prone CI/DI pipe; (2) increasing system pressure from low to medium; and (3) the relocation of meters from inside to outside customers’ residences. Staff Ex. 2.0 at 4.

3. AG’s Position

The AG asserts that what Peoples Gas began in the 1980s as a multi-decade program to remove vulnerable pipe from Chicago streets has morphed into a much larger, far more expensive program to “modernize” the utility’s infrastructure. The AMRP, as approved by the Commission in Peoples Gas’ 2009 rate case, consisted of: (1) accelerated replacement of CI/DI main in the utility’s distribution system; (2) converting Peoples Gas’ low-pressure system to medium pressure; and (3) relocation of meters from inside customers’ homes to outside. Docket Nos. 09-0166/09-0167, Order at 164-67.

The AG notes that in this case, Peoples Gas witness Hesselbach testified that the Peoples Gas-Proposed SMP includes work included in the AMRP approved by the Commission in the 2009 rate case plus three additional “Sub-programs”: (1) PI/SI; (2) high pressure installation program; and (3) transmission upgrades and future PHMSA requirements. PGL Ex. 1.0R at 15; PGL Ex. 1.2 at 1; see *also*, Staff Ex. 2.0 at 6. According to the AG, Mr. Hesselbach made clear that the scope of the Peoples Gas-Proposed SMP is defined by the costs the utility can recover through its Rider QIP. PGL Ex. 1.0R at 14.

The AG stresses that it does not oppose Peoples Gas modernizing its system. The AG believes, however, that the scope and pace of the modernization program should be defined by two criteria: (1) ensuring system safety and reliability; and (2) the cost and rate impacts of the investments needed to modernize the system. As to ensuring system safety and reliability, the AG points out that its witness Mr. Neale, a former gas utility executive, testified that to best ensure system safety, Peoples Gas should focus its main replacement efforts on “reconfigur[ing] its program to focus more resources on the worst-performing segments first with the goal of achieving greater levels of system risk reduction.” AG Ex. 1.0R at 3.

The AG asserts the Peoples Gas-Proposed SMP does not focus on replacing the riskiest pipe segments first and instead would replace vulnerable main using a “neighborhood approach,” which ranks Chicago neighborhoods to be addressed in the Peoples Gas-Proposed SMP by weighing several factors. One of the factors considered in ranking neighborhoods is the utility’s UMRI, which Peoples Gas “developed and has been utilizing since 1990 to determine the pipe segments in the system that are most likely to fail and should be replaced.” *Id.* at 8. Mr. Neale testified during the evidentiary hearing that “60[%] ... of the metrics [in the neighborhood ranking system] are not risk related.” Tr. at 383.

The AG claims that Mr. Neale's recommendation that Peoples Gas abandon the neighborhood program and "focus more resources on the worst-performing segments first with the goal of achieving greater levels of system risk reduction," influences the second touchstone for determining the proper scope of the program – the cost and resulting rate impacts of the modernization program. Mr. Neale explained that his proposed method for replacing at-risk main first should also reduce annual costs for the modernization program. AG Ex. 1.0R at 3.

The AG argues that the recently-revealed dramatic increase in the cost of the main replacement program raises customer affordability concerns. The Liberty Phase 2, First Quarterly Report made this point, stating that the then-recently revealed \$8 billion-plus price tag for the AMRP triggered "the need for re-examining and re-baselining fundamental AMRP parameters." AG Cross Ex. 9 at 4.

The AG asserts that the Peoples Gas-Proposed SMP seemingly shows little regard for customer affordability. Instead, Peoples Gas' approach would provide for a rolling three-year capital investment plan, the parameters of which are defined by the costs the utility can recover through its Rider QIP.

The AG concludes that while it is not opposed to Peoples Gas' plans to modernize its system, the scope of the program should be defined to strictly focus on prioritizing removal of the riskiest pipe first. Mr. Neale recommended that after the leak levels on Peoples Gas' system have been reduced to a manageable and safe level, the utility can then begin modernizing its system in a measured manner that "produces customer bills that are more affordable to customers and a distribution system with increased public safety.

4. CUB's Position

CUB notes that Peoples Gas accepted Staff's proposal to limit the scope of SMP to the three categories of work specified by Staff witness Seagle. PGL Ex. 2.0 at 3. The definition of SMP defines those categories of work on which Peoples Gas will report, but CUB observes that Peoples Gas will still recover the costs of the other components of the work under Rider QIP. Tr. at 139-40. CUB states, in other words, that if the Commission adopts Staff's proposed definition of SMP, the work completed under SMP will be narrower than the categories of work under Rider QIP, but will not limit or change the capital improvement work that Peoples Gas will perform or alter the scope of cost recovery under Rider QIP. PGL Ex. 2.0 at 3.

CUB notes that, by virtue of its very name, the "Neighborhood Replacement Program" does not focus only on replacement of the most hazardous pipe in Peoples Gas' territory. CUB observes that the neighborhood program focuses pipe and meter replacement (as well as an upgrading to medium pressure) on discrete neighborhoods, in which Peoples Gas prioritizes replacement of hazardous pipes first and then proceeds with the nonhazardous work in that neighborhood. CUB explains that the Company relies on its UMRI to maintain historical information on individual pipe segments and creates an "index factor" for each segment based upon past performance indicators of the pipe. AG Cross Ex. 2. The UMRI is used to prioritize the projects in the three-year plan. *Id.*

However, CUB avers that neither the neighborhood approach nor the UMRI consider leak flow rate (i.e. volume of methane released over time). CUB Ex. 2.0 at 2.

CUB advocates for the adoption and use of advanced leak detection technology, which, due to its higher sensitivity, can help utilities find more leaks. CUB Ex. 2.0 at 3. CUB explains that leak quantification methodologies use data derived from advanced leak detection technology to estimate leak flow rates from pipelines. *Id.* According to CUB, leak flow rates can then be used as an additional layer, after safety factors have been taken into account, to prioritize leak repairs and pipeline replacements, by allowing for the biggest leaks or leakiest segments of pipeline to be identified and addressed first. *Id.*

CUB claims that, at this point, the scope of the Company's pipeline replacement projects has not yet been finalized, and an opportunity is available to consider leak flow rate in main replacement prioritization. CUB Ex. 1.0 at 139-40. CUB argues that Peoples Gas witness Kinzle's conclusion that CUB's recommendation to incorporate leak flow rate data into its pipe replacement prioritization will "create a patchwork of replacement projects" and "increase the overall project cost and slow the deadline for completion" misconstrues the proposal, which advocates for incorporation of advanced leak detection technology into Peoples Gas' existing prioritization framework, including the UMRI, the neighborhood rankings and the PI/SI.

CUB concludes that advanced leak detection technology, due to its higher sensitivity, can help utilities find more leaks. CUB Ex. 2.0 at 3. Leak quantification methodologies use data derived from advanced leak detection technology to estimate leak flow rates from pipelines. *Id.* CUB maintains that leak flow rates can then be used as an additional layer, after safety factors have been taken into account, to prioritize leak repairs and pipeline replacements, by allowing for the biggest leaks or leakiest segments of pipeline to be identified and addressed first. *Id.*

5. City's Position

The City recommends that the Commission distinguish Peoples Gas' SMP from other Peoples Gas activities, in all respects. In defining Peoples Gas' accelerated asset replacement program (responding to PHMSA's Call to Action), the Commission must clearly differentiate the SMP from Peoples Gas' other asset investments. PHMSA's public safety and service reliability alarms must define the scope of the SMP. The City also argues that Rider QIP, which Peoples Gas looks to for SMP cost recovery as well as for other investments, cannot be a catalyst for commingling differently-purposed investments. Additionally, the City states that SMP information must be differentiated and separate in performance reporting, Rider QIP reports, and cost recovery.

6. Phase II

a. Are system pressure change and meter relocation necessary to ensure system safety?

(i) Peoples Gas' Position

Peoples Gas explains that system pressure changes and relocation of meters from inside to outside of customers' homes and businesses are necessary to improve the

safety, reliability and efficiency of Peoples Gas' natural gas delivery system. Further, relocating meters is consistent with the Commission's policy that meters should be moved outside or to an accessible indoor location. 83 Ill. Admin. Code §501.110(b); Stipulation in Docket No. 13-0460; Commission's Merger Condition of Approval No. 15 in Docket No. 14-0496.

Peoples Gas also notes that moving meters outside delivers several safety benefits. First, it eliminates a pathway for natural gas to enter the premises when it is leaking outside of a home or business where the buried service line enters the foundation. PGL Ex. 5.0 at 16. Second, if a meter malfunctions and leaks, the released gas will go into the atmosphere rather than into the customer's home or business where it could be exposed to an ignition source leading to a catastrophic event. *Id.* Third, if a leak does occur inside a home or business, Peoples Gas' crews are able to respond quickly to shut off the gas at the meter without waiting for customer permission to enter the premises. *Id.* at 16-17. Fourth, moving meters outside will deter meter tampering, which can lead to dangerous situations, and helps Peoples Gas to identify and remedy tampering when it occurs. *Id.* at 17.

Peoples Gas states that moving meters outside will also result in improved customer service and satisfaction. Peoples Gas conducts nearly 200,000 inside meter inspections each year. Each meter must be inspected every three years, and inspections are inconvenient to customers and building managers, since they must be present or arrange for access. Peoples Gas is forced to terminate the service of hundreds of customers each year because they do not grant access for meter inspections. *Id.* Having outside meters avoids these issues.

Upgrading system pressure from low to medium also delivers several safety and reliability benefits. PGL Ex. 6.0 at 15. First, medium pressure allows the use of excess flow valves ("EFV") -- a technology that can prevent incidents caused by external damage to service lines. PGL Ex. 5.0 at 17. Second, higher-pressure main reduces outages caused by water infiltration, a problem common to low-pressure mains. *Id.* at 17-18. Third, customers are able to purchase and use modern, more efficient appliances that require greater pressure. The greater efficiency of these appliances conserves natural gas and saves customers money. *Id.* at 18. Fourth, medium pressure mains allow customers to eliminate booster pumps that are currently necessary to provide adequate operating pressures in some facilities such as schools and hospitals. *Id.* at 18.

(ii) Staff's Position

Staff notes that Peoples Gas includes the conversion of its natural gas system from low to medium pressure and the relocation of meters located inside customer buildings to outside those buildings in the scope of SMP. Significantly, the General Assembly identifies improved public safety and reliability as the "cornerstone" of the legislation approving a qualifying infrastructure surcharge. 220 ILCS 5/9-220.3(d)(1). By including "the relocation of meters from inside customers' facilities to outside" in the definition of qualifying infrastructure plant in Section 9-220.3 (see 220 ILCS 5/9-220.3(b)(2)), the General Assembly clearly recognized the safety benefits of this practice. In Staff's opinion, the Company satisfactorily demonstrates that moving meters and increasing pressure provide safety, reliability and efficiency benefits to customers and the City of

Chicago. Staff Ex. 4.0 at 5. Accordingly, Staff considers their inclusion within the scope of SMP to be appropriate.

7. Commission Analysis and Conclusion

Staff notes that in the QIP Rider legislation, the General Assembly specifically included the moving of meters outside as a qualifying infrastructure plant in Section 9-220.3. Peoples Gas claims that the inclusions of these upgrades help deliver several safety and reliability benefits. Many Peoples Gas customers have their service interrupted because the Company does not have access to the meter for the required inspections Peoples Gas also proposes the conversion of its natural gas system from low to medium pressure. The increased medium pressure allows for the use of excess flow valves that can reduce damage to pipes and reduces the infiltration of water, which happens with lower pressure pipes. Also, many new and modern appliances require greater pressure to work properly, and increasing pressure eliminates the use of booster pumps that are now necessary to provide adequate gas pressure. The Commission agrees with Staff that Peoples Gas has demonstrated that there are safety, reliability and efficiency benefits for the customers and the City of Chicago by including the moving of meters and increasing gas pressure in the SMP. The Commission finds that the moving of the meters and increasing pressure should be included in the SMP. The Commission concludes that the SMP will provide benefits and cost savings by upgrading and modernizing the system at the same time that Peoples Gas performs the replacement of at-risk facilities.

C. Public Safety

1. Peoples Gas' Position

Peoples Gas explains that making its system safer by prioritizing replacement of the most at-risk main on the system is the "bedrock principle" upon which the SMP is designed. PGL Ex. 2.0R at 4. Public safety is the primary purpose of the SMP, and all parties appear to support the need for Peoples Gas to modernize its system.

Peoples Gas has developed a comprehensive risk-ranking methodology to ensure, as much as possible, that public safety is maximized at every stage of the SMP. *Id.* Peoples Gas further explains that the SMP complies with state and federal regulatory recommendations that are specifically designed to rid natural gas distribution systems of at-risk pipe. *Id.* at 3.

Peoples Gas states that completion of the work necessary to maintain a safe and reliable system is not dependent on the existence of Rider QIP. *Id.* at 4. However, the Company takes the position that reasonable, timely recovery of prudently incurred costs -- whether through Rider QIP, rate cases, or some other mechanism -- is essential to maintaining an accelerated pace of work on the SMP. *Id.*

2. Staff's Position

In Staff's opinion, safety should be the foremost and basic consideration in the design of the SMP. Staff Ex. 3.0 at 9. Staff refers to the emphasis on safety found in the U.S. Department of Transportation's PHMSA's Call to Action that calls for the prompt removal of at-risk facilities, including all CI/DI mains. Staff Report at Appendix F. Staff

concludes the Company's program should continue to focus on at-risk facilities. Staff Ex. 3.0 at 7.

3. AG Position

See AG's Position under Section II. A. 3.

4. CUB's Position

CUB states that according to Peoples Gas, many parts of the Company's natural gas distribution and transmission system are in "various states of deterioration, resulting in leaks, interruptions in service and greater potential for dangerous incidents." PGL Ex. 1.0R at 6. CUB notes that, in 2011, Peoples Gas initiated the AMRP to accelerate the replacement of the aging, at-risk parts of its system and the SMP is the continuation of that effort. *Id.* at 6. Peoples Gas explains that the SMP is intended to deliver "operational, safety and customer service benefits," and to satisfy PHMSA's Call to Action to accelerate the repair, rehabilitation and replacement of the highest-risk pipeline infrastructure. *Id.* at 6-7. However, CUB points out that the SMP also includes moving customer meters outside or to an accessible indoor location. *Id.* at 7.

CUB observes that the Company's method for grading leaks appears to follow PHMSA's guidelines. CUB Ex. 1.0 at 15. The PHMSA leak grading categories are based solely on risk to persons or property, and under the existing regulatory framework, utilities are generally not required to repair non-hazardous leaks that do not impose immediate hazard to persons or property within a specific timeframe. *Id.* CUB states that as a result, some non-hazardous leaks may continue unabated for decades. *Id.* at 15. CUB maintains that the SMP should consider safety implications as well as efficient spending and saving of ratepayer dollars in prioritizing work.

CUB emphasizes that use of advanced leak detection technology allows the detection of additional leaks, which the Company has not been able to find using less sensitive, traditional leak detection equipment. CUB states that the adoption of CUB's leak detection proposal will not impair public safety, and in fact could improve the Company's ability to identify hazardous, as well as non-hazardous, leaks in its system. Importantly, CUB notes that six of the leaks that were found during the Environmental Defense Fund ("EDF") leak survey were later labeled as Grade 1, hazardous leaks requiring immediate action, which the Company had not previously identified. CUB Cross Ex. 2.

5. City's Position

The City observes that all parties agree that safety is the highest priority in the design, planning, and implementation of PGL's SMP -- however it is defined. City-CUB Ex. 1.0 at 44- 51; Staff Ex. at 15; AG Ex. 1.0 at 34; Tr. at 153. The City states that the consequence of that priority is an imperative for clear limits circumscribing Peoples Gas' program of accelerated investment.

6. Phase II**a. Is there empirical evidence that pipes are in danger of failing?****(i) Peoples Gas' Position**

Peoples Gas explains that there have been multiple explosions involving vintage mains around the country causing loss of life and significant property damage. PGL Ex. 5.0 at 31. Specifically, four national incidents since 2011 led to 15 deaths and over 70 injuries. *Id.* The Allentown, Pennsylvania incident and other similar incidents led PHMSA to issue its "Call to Action" in 2011, which encouraged utilities to accelerate the replacement of at-risk main, including cast and ductile iron main. *Id.* at 31-32. Many utilities across the country are responding to the problems caused by aging main. Utilities in other major, densely-populated cities like New York, Baltimore, Washington DC and Philadelphia are replacing cast and ductile iron main, and there are programs underway in 35 states to do the same. *Id.* at 32; *see generally* PGL Ex. 6.0.

Peoples Gas' own mains have specifically been found to be susceptible to deterioration and failure. PGL Ex. 5.2 at 7-8. The 2007 Kiefner & Associates, Inc. engineering study (the "Kiefner Study") concluded that "replacement of all segments of 4-inch, 6-inch, and 8-inch pipe should be completed by 2036 as these sizes of pipes have accounted for over 90 percent of the instances of breakage and cracking." *Id.* Thus, it is critically important for Peoples Gas to continue the important work of taking these at-risk mains out of service on an expedited basis. The SMP is designed to do just that.

(ii) Staff's Position

Staff witness Lounsberry noted that the Company testified that there have been multiple explosions around the county involving older mains constructed from cast iron. Staff Ex. 4.0 at 13. Further, Mr. Lounsberry testified the Company indicated the Kiefner Study concluded that "replacement of all segments of 4-inch, 6-inch, and 8-inch pipe should be completed by 2036 as these sizes of pipes have accounted for over 90 percent of the instances of breakage and cracking." *Id.* Mr. Lounsberry concluded there was no reason to take issue with the statements made by the Company on this topic. *Id.*

(iii) AG's Position

The AG notes that Staff and Peoples Gas point to four pipeline accidents that have occurred in the United States in the past several years as "empirical evidence that pipes are in danger of failing." The AG does not discount the seriousness of these incidents; they are tragic and regrettable. However, the AG argues there is no evidence in this case that Peoples Gas's proposal to spend \$300 million annually on the SMP provides any greater level of safety than the AG's approach, which better prioritizes replacement of the riskiest mains and at a pace that is more affordable to PGL customers. The AG quoted Mr. Coppola's statement that Peoples Gas witness "Egelhoff's statement that [his] proposed AMRP/SMP implementation scenarios would have negative consequences on the safety and reliability of the gas system and customers is ... unfounded. As I have repeatedly stated, the Company has not performed any analysis or provided any evidence that my proposed implementation scenarios have been evaluated by competent and

independent engineering experts to establish that they pose a greater risk than the Company's proposed program." AG Ex. 7.0 at 42.

The AG points out that Peoples Gas's primary evidence supporting its recommended SMP spending level and proposed program end date is based on "engineering judgment". PGL Ex. 5.0 at 36; PGL Ex. 7.0 at 21. According to the AG, engineering judgment is not empirical evidence that any of the utility's mains are in danger of failing without an annual investment of some \$300 million per year on the SMP or that the AG's recommendation that the utility annual spend on the SMP be lower and the end date be extended is riskier than the Company's proposal.

The AG adds that Peoples Gas admitted that its most dangerous main is repaired in no less than 15 months outside the SMP in the normal course of business. Class 1 leaks are repaired immediately. Class 2 leaks are repaired within one calendar year, not to exceed 15 months.

The AG states further that PGL and Staff relied on the Kiefner Study as empirical evidence that pipe are at risk of failure. Staff and the Company claimed the Kiefner Study "concluded" that all 4", 6", and 8" pipe be replaced by 2036 as those sizes of pipe accounted for more than 90% of the cracks and leaks on PGL's system."

The AG alleges that Peoples Gas's and Staff's recitation of the Kiefner Study is inaccurate. The AG explains that Peoples Gas witness Mark Kinzle conceded during cross-examination that the Kiefner Study's 2036 completion date recommendation was not made because of safety concerns:

Q. My question was, would you agree that the 2036 forecasted completion date for 6-inch pipe in Table 4 on page 17 of the Kiefner report and repeated a few more times throughout the report was not based on a particular calculation that that year was required for safety purposes?

A I believe it was based upon the study, the metallurgical study of the material, and the pace that it was being done at that time. Tr. at 538-539.

With respect to its recommended replacement criteria, the Kiefner Study states:

Based on the findings that [cast iron] and [ductile iron] mains are being replaced at a consistent rate that could meet *several possible reasonable completion dates* and that the [main replacement index] approach appears to adequately single out the problematic segments in terms of breaks and cracks, it is reasonable to conclude that the current [vulnerable main] Replacement Program criteria and methodology are working effectively. The trend in cracks, breaks and leaks is downward, *and progress is occurring at a rate sufficient to enable [Peoples Gas] to have all cast iron and ductile iron mains of sizes 12-inch and smaller replaced by 2050.*

AG Ex. 4.2 at 18 (pdf page 23) (emphasis added).

The AG argues that these statements make clear that the Kiefner Study's proposal that all 4", 6", and 8" main to be replaced by 2036 was not made due to safety concerns. Rather, the 2036 date was based on the pace that PGL was replacing pipe at the time. In fact, the AG points out that the Kiefner Study found that several completion dates are reasonable and that 2050 was the expected completion date for the program. Mr. Coppola's proposal in Phase I of this case that Peoples Gas make \$130 million in annual capital investments in SMP would result in a 2053 completion date (AG Ex. 2.0R at 42), a date comparable to the 2050 completion date endorsed in the Kiefner Study. The AG adds that in his testimony in Phase II, Mr. Coppola proposed three different completion date scenarios. His first two scenarios propose that PGL spend \$130 million annually on the SMP and have staggered completion dates for different sized main. Mr. Coppola's third scenario recommends that Peoples Gas spend \$157 million annually, resulting in a 2050 completion date for all sizes of pipe. AG Ex. 4.0 at 20-23. Thus, the AG asserts that Mr. Coppola's third scenario is identical to one of the suggested program end dates included in the Kiefner Report.

(iv) CUB's Position

CUB understands that accelerating the replacement of leak prone pipe under PGL's SMP, formerly AMRP, is beneficial to the safety and performance of PGL's system. CUB is also cognizant of the PHMSA 2011 "Call to Action" to accelerate the repair, rehabilitation and replacement of the highest-risk pipeline infrastructure. PGL Ex. 5.0 at 9:158-164. However, CUB avers that the rate at which this replacement should occur has been the subject of much debate in this proceeding because it dictates significant, even catastrophic, rate impacts for a segment of PGL's customers. CUB concludes that the record in this proceeding does not definitively answer the question the Commission posed: What main replacement program is needed for safe, reliable, least cost service? While it is clear leak prone pipe and other vulnerable mains must be replaced, CUB argues that PGL has not performed the analyses to quantify the risks in the system, relying instead on multiple factors including engineering studies, engineering judgment, the PHMSA "Call to Action," gas pipe safety incidents around the country, etc. PGL Ex. 11.0 at 10.

Further, CUB maintains that the pace of the AMRP did not align with PGL's projections in the early years of the program, which undermines both PGL's and the Commission's prior reliance on generic safety and reliability justifications to support specific end dates for the program. In 2009, CUB points out that PGL requested approval of the AMRP to accelerate the replacement of vulnerable cast iron and ductile iron main. In Docket No. 09-0167, PGL requested Commission approval of a rider to recover the costs of accelerating the replacement of vulnerable main from its then-current pace, which would have the replacement completed in the year 2059, to a nineteen-year accelerated replacement scenario which would have Peoples Gas complete its replacement program by the year 2029. *The Peoples Gas Light and Coke Co.*, Docket No. 09-0167, Order at 166 (Jan. 21, 2010). In the end, CUB claims that the Commission approved of the AMRP that would have the program completed by 2030, based in large part on the premise that "safety and reliability are simply not negotiable." *Id.* at 194.

CUB notes that PGL began implementation of the AMRP in Spring 2011 but experienced “considerable problems” that slowed the ramp up of the program below initial projections, had no reliable cost estimates, and lacked a schedule. *The Peoples Gas Light and Coke Co.*, Docket No. 12-0512, Final Order at 45-48 (Jun. 18, 2013). In that rate case, CUB explains that Staff alleged that the AMRP had fallen behind schedule and been poorly managed, and concluded that there was no reason to believe PGL could complete the AMRP in 20 years or solve the many problems the program encountered. *Id.* at 46-47. Consequently, observes CUB, Staff recommended an audit of the program, which eventually culminated in the Liberty Audit Report, released in May 2015. PGL Ex. 5.0 at 57.

CUB avers that the fact that PGL could not keep pace with its promised 2030 AMRP end date, and now confidently asserts that a 2035 or 2040 end date is the optimal completion timeframe of the program illustrates the uncertainties inherent in predicting (and implementing) the optimal pace for replacement of leak prone pipe in PGL’s system. CUB claims that even PGL acknowledges the many externalities that can influence the cost and pace of the program, as well as the safety and reliability of PGL’s infrastructure backbone. See, e.g., PGL Ex. 5.0 at 22-23. Thus, CUB argues that the Commission cannot conclude with certainty that 2035-2040 is the only acceptable timeframe for completion of the program. Further, according to CUB, the massive increase in the projected total costs of the program between when the AMRP was initially proposed in 2011 (about \$2.2 billion), and the current projections (between \$6.83 and \$10.96 billion, Staff Report, Appendix I at 8) must be factored into the Commission’s conclusions regarding the approved scope and pace of the SMP. The balance between least cost service and safety and reliability remains a primary concern to the consumer advocates – CUB and the AG – in this proceeding, and while customer rates will continue to rise under any accelerated schedule, CUB warns that the Commission must attribute the proper weight to the rate impacts under the various proposed timelines.

b. Does the Main Ranking Index effectively prioritize replacement of the most at-risk pipe?

(i) Peoples Gas’ Position

Peoples Gas explains that the UMRI assists Peoples Gas in prioritizing at-risk mains for replacement. PGL Ex. 5.2 at 26-27. The UMRI is one of the factors that goes into Peoples Gas’ Distribution Integrity Management Program (“DIMP”). *Id.* Neighborhood rankings, in turn, are based on the DIMP. *Id.* at 25.

The UMRI reflects the statistical mean of the riskiness of all the segments of low pressure gas mains and medium pressure cast and ductile iron gas mains within a neighborhood. PGL Ex. 5.0 at 15. This metric allows Peoples Gas to compare the relative condition of each segment of gas main in its system. The UMRI is a methodology that maintains historical information on individual pipe segments and creates an “index factor” for each segment based on past performance indicators on the pipe segment. *Id.* at 15-16. Individual segments are identified based on the year they were installed, their pressure, diameter, material and location. *Id.* at 16. Segments can range from one foot to one mile in length. *Id.* at 16. Mr. Therrien’s research revealed that Peoples Gas’ UMRI

is consistent with approaches other utilities take to evaluating the relative risk of pipes in their systems. PGL Ex. 6.0 at 17-19.

(ii) Staff's Position

Staff states that Mr. Hesselbach stated that the UMRI does indeed prioritize replacement of the most at-risk pipe, and noted that the mean UMRI is one of the factors that goes into the neighborhood rankings. The Company uses the UMRI to develop an "index factor" based on past performance indicators for each segment of pipe. PGL Ex. 5.0 at 33. In his Phase I direct testimony, Mr. Lounsberry stated that Liberty had recently evaluated Peoples Gas' Neighborhood approach and the use of the UMRI and noted that the Company had implemented recommendations made by Liberty in this regard. Staff Ex. 1.0 at 7. Mr. Lounsberry found no reason to take issue with the Company's conclusions on this topic. Staff Ex. 4.0 at 13.

(iii) AG's Position

While safety and reliability may have been the Commission's focus for the AMRP, PGL's SMP is not focused solely on replacement of vulnerable mains, and even that portion of the program is flawed in its ability to identify the most vulnerable main. What started as a main replacement project (the AMRP) has morphed into a \$300 million "SMP", so any notion that the rolling three-year SMP Plan is tied to safety should be stricken from the Final Order.

In addition, as the evidence and AG briefs have shown, PGL has made clear since it first proposed rider recovery of its then-named AMRP in 2007 that its main concerns have been cost recovery and increasing its rate base investment to please Wall Street and shareholders. AG witness Sebastian Coppola testified that Mr. Hesselbach's testimony as well as a September 2016 presentation made by WEC Energy Group, Inc. ("WEC"), PGL's ultimate corporate parent, to securities analysts shows PGL's desire to increase capital expenditures.

In addition, as detailed in the AG's Initial Brief in Phase I of this investigation, rather than prioritizing safety and reliability, the Company has instead focused proposed spending levels for main replacement and other SMP projects on whether immediate cost recovery, through a rider, was available. It asserted that the rate impacts of the main replacement program are defined by the financial resources available to it through Rider QIP and then proposed a flawed system modernization program using an index that minimizes the assessment of main vulnerability to follow the limits of those budget resources. Mr. Hesselbach made clear that the scope of the PGL-Proposed SMP is defined by the costs the utility can recover through its Rider Qualifying Infrastructure Plant ("Rider QIP").

While PGL witness Hesselbach testified that "Peoples Gas has a neighborhood ranking system that uses several key metrics, to determine the best use of resources to replace the most at risk pipe in a timely and cost-effective manner", the evidence shows that the Company's neighborhood system does not replace the "most at risk pipe." Although PGL's neighborhood ranking system incorporates the uniform main ranking index ("UMRI" or "MRI"), other factors are used to select neighborhoods for pipe

replacement that effectively dilute the metrics that assess pipe vulnerability. AG witness Neale, exposed the many flaws in the Company's Neighborhood approach as a means to identify the most vulnerable mains in the PGL system. He included a table in his testimony setting forth the metrics PGL uses in its neighborhood ranking system and the weighting factors Peoples Gas applies to each of those factors.

The weighting included in PGL's neighborhood ranking system raises serious questions as to whether the utility is replacing "the most at risk pipe." In sum, PGL's neighborhood approach utilizes a neighborhood ranking index that applies five model weighting factors, including only a 30% weighting of the amount of medium pressure CI/DI main in a neighborhood. When asked during cross-examination why the Company had included medium pressure CI/DI as one of the five factors in the Neighborhood Ranking Index, the Company answered that it was riskier: Because there is a higher risk with medium pressure cast iron and ductile iron pipe. It's operating at a pressure 80 times the pressure of our low pressure system.

The Company conceded on cross-examination, however, that it had performed no quantitative analysis to produce the index factors and instead relied solely on non-quantitative professional or engineering judgement to produce the factors in the index. The CI/DI medium pressure factor, as used by the Company in the index, simply measures the percentage of that material in configuration of the distribution system in neighborhood, and nothing more. According to the Company's Neighborhood Ranking Index: "% of CIDI medium pressure pipe" is the amount of cast iron and ductile iron gas mains operating at medium pressure within that neighborhood divided by the total amount of low pressure gas main and medium pressure cast and ductile iron mains.

No leak or other performance data is included for any particular segment of pipe under this approach, and the Company's index simply assumes that all segments of medium pressure CI/DI pipe are riskier than other parts of the system and are also equally risky when compared to other medium pressure CI/DI segments. Under the Company's application of this factor in the index, the entire population of CI/DI segments are treated as homogenous, regardless of leak history or other measures of degradation on the pipe.

AG witness Neale testified that there are several flaws in the Company's approach. First, system configuration without performance data is not an appropriate measure of risk, as explained by Mr. Neale when asked at hearings if a low or medium pressure CI/DI pipe was riskier: Actually, I defer to performance criteria on the actual pieces of pipe. If there's a cast iron pipe operating at a higher pressure, and it has no history of leakage, I would say that was less risky than a low pressure cast iron pipe that has a history of much leakage.

In other words, a piece of equipment on the Company's system performing as designed in the field is no more or less risky than any other piece of equipment. This observation is a key factor that the Company largely overlooked when it created the neighborhood ranking index.

Second, if the Company is concerned that certain of its medium pressure CI/DI segments are not performing in the field, and are in need of targeted replacement, then it already has a method for focusing on those segments through the use of the MRI. The

MRI is included as part of the neighborhood ranking index, and it includes performance-based factors that differentiate between pipe pressure and that specifically account for medium pressure CI/DI. Unfortunately, the Company includes the MRI at only 30% of the weight in the index, thereby greatly diluting the ability of the MRI to impact and focus PGL replacement activity on neighborhoods with poorly performing pipe. While this performance-based metric is in the neighborhood ranking index, the dilution of the MRI weighting to just 30% of the total index requires an entire neighborhood to be replaced in order to replace what could be just a few sections of bad pipe.

Even worse, the evidence also shows that its proposed Neighborhood Approach and reliance on its MRI do not prioritize replacement of the most at-risk main. AG witness Neale expressed concern that PGL's risk-ranking approach is insufficiently granular because it only goes from 0 to 6. Mr. Neale explained that that lack of granularity may hinder PGL's ability to identify gradations of risk among main segments. In his rebuttal testimony on re-opening, Mr. Neale expanded on this point, stating that there are two problems with Peoples Gas's risk-ranking approach. First, the indirect measures used in the utility's MRI do not provide information as to how a particular pipe segment is performing in the field. This, according to Mr. Neale, could cause a pipe segment that is not leaking as being classified as more risky than it actually is. Second, Mr. Neale expressed concern that certain MRI factors may be captured in other UMRI measures, meaning that the factors are double-counted. Mr. Neale concluded that these issues could lead to inefficient risk ranking.

In addition, the new, additional programs included in the PGL-proposed SMP (as opposed to an AMRP) are not risk-targeted distribution main replacement programs. What was originally an AMRP – presumably focused on the removal of at-risk main, has morphed (with the Proposed Order's and Staff's blessing) to an infrastructure modernization program that has little to do with maximizing the safety of the PGL system and everything to do with satisfying investors, whose returns, as noted above, rely on significant growth in utilities' rate bases.

Contrary to PGL and Staff arguments, PHMSA's "Call to Action," cannot be used as support for approving the Company's proposed plan. PHMSA's Call to Action was not a mandate that at-risk pipe be removed as fast as possible, and certainly not regardless of cost, as noted previously. Nor was it a directive that vulnerable mains be removed as fast as possible without considering whether doing so would raise significant health- and safety-related problems for utility customers that can no longer able to afford natural gas service due to the extreme rate impacts that main replacement programs might cause. Following its Call to Action, PHMSA issued Advisory Bulletin ADB-2012-05 in the Federal Register on March 23, 2012. The Advisory Bulletin states in relevant part : PHMSA urges owners and operators to conduct a comprehensive review of their cast iron distribution pipeline systems and replacement programs and to accelerate pipeline repair, rehabilitation, and replacement of aging and high-risk pipe.

PHMSA's Advisory Bulletin is consistent with its Call to Action in that it does not require gas utilities to remove vulnerable pipe as fast as practicable. The Proposed Order's conclusion that "Peoples Gas' procedures for grading leaks appears to be in line with PHMSA's guidelines" is completely unsupported.

In short, the substantial evidence in the record does not support a finding that (1) the Company's MRI adequately targets vulnerable pipe in the PGL system, and somehow justifies adoption of the proposed \$300 million SMP.

c. Are there public safety concerns associated with reduced affordability of natural gas service?

(i) Peoples Gas' Position

Peoples Gas explains that its extension of the program completion date from 2030 to 2035-2040 was done, in part, to mitigate shorter-term affordability concerns, while at the same time completing the program on a timeline that maximizes public safety. PGL Ex. 5.0 at 34. Peoples Gas also explains that the legislature has resolved the issue of affordability by including recovery caps in the Rider QIP law for system modernization work. Thus, the Commission lacks authority to impose caps below those contained in the law, either directly or indirectly, which should end its inquiry into this question. But for the AG and Sargent Shriver, their analysis does not begin or end with the law.

The Company states that the AG's arguments on affordability rely heavily on the testimony of Roger Colton. Much of Mr. Colton's testimony focused on the issues of arrearages, deferred payment arrangements and disconnections. The AG argues, in particular, that the SMP's cost will increase arrearages and disconnections, and that the Company is somehow purposely limiting the availability of deferred payment arrangements, which will exacerbate the problem. When it comes to deferred payment arrangements, the un rebutted record evidence shows that Peoples Gas complies with the Public Utilities Act ("PUA" or "Act"), the relevant provisions of the Commission's Part 280 rules and the Terms and Conditions of Service included in Peoples Gas' Schedule of Rates for Gas Service. PGL Ex. 9.0 at 11. These rules are specifically designed to protect customers from disconnection, in part through making deferred payment arrangements readily available, and there is simply no record evidence showing that Peoples Gas has failed to comply with them.

Peoples Gas explains that Mr. Colton makes much of the fact that deferred payment arrangements have declined in recent years. Peoples Gas witness Ms. Egelhoff explained the reason for this decline in her rebuttal testimony:

A change in the Commission's Part 280 rules strengthened requirements that have the effect of helping ensure that all Illinois utilities better align their disconnection notice activities with their available resources in the field. Specifically, the effect of the Part 280 rules is to encourage utilities to hold off on sending a disconnection notice until they have personnel available to complete the disconnection. Although a disconnection notice is not a prerequisite to entering into a [deferred payment arrangement], a customer that has not received a disconnection notice is less likely to enter into a [deferred payment arrangement]. This accounts for the lower number of active [deferred payment arrangements] in 2016.

PGL Ex. 9.0 REV at 11-12. Thus, as Ms. Egelhoff explained, “the decrease in [deferred payment arrangements] Mr. Colton observes does not support his conclusion that [deferred payment arrangements] are somehow less available to customers than they were in the past.” *Id.* at 12.

Peoples Gas explains that while the AG gives lip service to a concern with the public safety hazards posed by deteriorating gas mains, its focus is almost exclusively on another policy concern -- affordability. By focusing myopically on this issue, the AG ignores the PUA’s oft-repeated concern for safety in the more traditional sense, and for reliability. For example, Section 5-111(a) of the PUA focuses on safety and reliability in addition to affordability:

The General Assembly recognizes that for well over a century Illinois residents and businesses have relied on the natural gas utility system. The General Assembly finds that in order for a natural gas utility to provide *safe, reliable, and affordable* service to the State's current and future utility customers, a utility must refurbish, rebuild, modernize, and expand its infrastructure...

220 ILCS 5/5-111(a) (emphasis added). Likewise, Section 8-505 of the PUA allows the Commission to require utilities to operate and maintain their equipment in a manner that promotes the safety of employees, customers and the public:

The Commission shall have power, after a hearing or without a hearing as provided in this Section and upon its own motion, or upon complaint, by general or special orders, rules or regulations, or otherwise, to require every public utility to maintain and operate its plant, equipment or other property in such manner as to promote and safeguard the *health and safety of its employees, customers, and the public*, and to this end to prescribe, among other things, the installation, use, maintenance and operation of appropriate safety or other devices or appliances, to establish uniform or other standards of equipment, and to require the performance of any other act *which the health or safety of its employees, customers or the public may demand*.

220 ILCS 5/8-505 (emphasis added). Moreover, Section 1-102(c) of the PUA focuses on reliability:

Reliability: the ability of utilities to provide consumers with public utility services under varying demand conditions in such manner that suppliers of public utility services are able to provide service at varying levels of economic reliability giving appropriate consideration to the costs likely to be incurred as a result of service interruptions, and to the costs of increasing or maintaining current levels of reliability consistent with commitments to consumers.

220 ILCS 5/1-102(c). While Peoples Gas does not dispute that it has an obligation to provide affordable gas service, that obligation is to be weighed against its duty to also provide safe and reliable service. The AG ignores other elements of the equation by focusing solely on affordability. As Peoples Gas has demonstrated at great length in this docket, the requirements of safety and reliability support pursuing the SMP on the schedule the Company has proposed.

The AG has repeatedly claimed that Peoples Gas has prioritized shareholder earnings at the expense of public safety and affordability. See, e.g., AG Initial Br. at 93 (“the Company’s yardstick for setting its proposed SMP budgets . . . is not tied to safety and reliability needs, but rather maximizing its parent company’s shareholder value through increasing capital investments and maximizing its rate base.”). This claim is baseless. The AG argues in Phase II that the Commission should reject the SMP as proposed because it fails to balance customer interests against utility shareholders’ interests. See *Id.* at 23-25. Simply put, the fact that Peoples Gas’ parent company declares dividends or that its share price increases has nothing to do with whether the proposed SMP properly balances shareholder and customer interests, because it ignores the actual animating force behind the SMP, which is safety and reliability. Peoples Gas witness Mr. Hesselbach addressed this argument in his surrebuttal testimony:

Q. Mr. Coppola continues to argue that WEC . . . is focused on maximizing capital expenditures at Peoples Gas to grow earnings per share. AG Ex. 7.0 at 5. Do you agree?

A. No. The men and women at Peoples Gas (many of whom are residents of the City) and its parent company are committed to improving the safety and reliability of the gas distribution system in Chicago. We take our obligation to our customers seriously. Peoples Gas is constantly striving to drive down the cost of the SMP through more efficient project management, close supervision of contractors and other efficiency efforts such as improving systems, technology and tools. As part of that effort, WEC’s management proposed a slower pace for the program – a target end date of 2035 to 2040 – to achieve better efficiencies and balance affordability concerns with the need to ensure that our system is safe and reliable. This decision is at odds with Mr. Coppola’s suggestion that WEC seeks only to maximize returns for shareholders.

PGL Ex. 11.0 at 9. The Commission should not be persuaded by the AG’s overly-simplistic argument, which can be boiled down to “if Peoples Gas’ corporate parent pays a dividend, or its stock price increases, that must mean that the SMP is unaffordable and should be decelerated.”

Peoples Gas explains that Sargent Shriver’s arguments on affordability are largely derivative of the AG’s and rely in particular on AG witness Mr. Colton’s testimony. The balance of Sargent Shriver’s briefing relies on a series of anecdotes from people who spoke at Commission open meetings in the spring of 2017, or on materials that are not in

the record and which, due to Sargent Shriver's late intervention, could not be tested. None of these materials can form a proper basis for a decision by the Commission.

Peoples Gas explains that anecdotes and hearsay are not evidence. To take one example, Sargent Shriver relies on a statement by a gentleman who testified that his neighbors "choose between food or heat or medicine or heat, because of the high cost of gas service." Certainly, Peoples Gas does not intend to downplay the seriousness of financial challenges, but the Commission simply cannot rely on speculation by an unsworn speaker about the financial decision making of unidentified neighbors as the basis for a decision. Sargent Shriver's other anecdotes suffer from similar problems.

Likewise, Sargent Shriver argues that rising natural gas rates may lead to increases in evictions. With the exception of a passing reference in Mr. Colton's testimony, there is no evidence to this effect, and Sargent Shriver's attempt to inject new materials into the record at this late date should be rejected.

(ii) Staff's Position

Staff understands the Company to endorse extending the SMP beyond its original end date by 25% to 50%, which it believes will moderate the financial impact on customers without sacrificing safety. PGL Ex. 5.0, 33-34. Staff found no reason to take issue with the Company's position on this issue. Staff Ex. 4.0, 15.

Staff draws a distinction between the "affordability" of a program and "rate impacts." As discussed below in Section V.B.5.c, it is Staff's position that the issue of affordability of SMP is resolved as a matter of statute.

(iii) AG's Position

The AG argues that there are significant public safety concerns associated with reduced affordability of gas service. The AG adds that in whether to modify the Company's proposed SMP Plan, the Commission has an obligation to assess the health and safety risks to customers imposed by the bill increases that will result from adoption of the Company's proposed annual SMP spending levels. According to the AG, the PUA makes clear that public utility service is an *essential* service that must remain affordable.

For example, the Commission must be guided by the statutory obligations (and thus the obligations of PGL) provided for under the PUA:

the policy of the State [is] that public utilities shall continue to be regulated effectively and comprehensively. It is further declared that the goals and objectives of such regulation shall be to *ensure*... that (i) the *public health, safety and welfare shall be protected*.

220 ILCS 5/1-102(d)(i)) (emphasis added). Section 8-201 likewise makes clear the General Assembly's observation that utility service is essential in its mandate that "no person should be denied essential utility service during the winter months due to financial inability to pay." 220 ILCS 5/8-201.

The AG points out that neither Staff nor the Company addressed the critical health and safety issues related to affordability of PGL rates. The AG submitted the testimony of Mr. Colton to examine the impacts on public health and safety associated with adoption of the Company's SMP proposal versus the risks raised in Mr. Coppola's alternative SMP recommendations. The AG notes that Mr. Colton's testimony showed the risks include not only the risks associated with nonpayment and the potential loss of natural gas service, but the risks of being forced into actions customers feel are necessary in order to make their utility bill payments and retain their utility service.

The AG argues that Peoples Gas' residential customers, particularly low-income residential customers, already are having difficulties retaining gas service. These difficulties will necessarily mount as bills increase. A review of PGL data over the past five years indicates that the level of average residential arrearages closely correlates with the level of customer bills. When gas bills spiked due to extreme weather in 2014, an increase in the level of arrearages followed. In contrast, as gas bills moderated over the next few years, arrearages declined as a result. When gas bills noticeably increased beginning in late 2016, arrearages began to increase in response. AG witness Colton testified that the same should be expected as bills increase as a result of the gas main replacement program proposed by the Company here.

The AG asserts that not only will residential customers be further in arrears as bills increase, the Company's data shows that *more* customers will be in arrears as bills increase. The impact of increasing bills will be to increase both the incidence of arrears (*i.e.*, the number of accounts in arrears) as well as the magnitude of arrears (*i.e.*, the level of arrears).

The AG states that Mr. Colton included data in his testimony for the past five years can be that tracks both the level of the monthly heating bill and the percentage of residential accounts in arrears. According to the AG, these data show that the percentage of residential heating accounts in arrears increases as the level of monthly heating bills increase. The AG claims that the data show that as the Company's residential customers experience increased bills attributable to the gas main replacement programs, not only will more customers fall into arrears, but they also will fall deeper into arrears. AG Ex. 5.0R at 30.

The AG adds that Mr. Colton reviewed the Company's collection practices in response to this increase in the incidence, depth, and timing of arrears. Based on his review of reports involving collection practices filed by PGL with the Commission, as well as PGL responses to AG discovery, the AG argues that the Company appears to be relying less on deferred payment arrangements ("DPAs") as a mechanism through which customers may retire arrears. Mr. Colton included a graph in his testimony showing that since the end of 2015, the ratio of "Active DPAs" to every 1,000 accounts in arrears has decreased. *Id.* at 30-31.

The AG explains that the decline in DPAs is not reflected simply in the rate at which such agreements are entered into by the Company. There has been a decline in absolute numbers of DPAs as well. Mr. Colton also included a graph showing the total number of active DPAs by month for the past five years. The AG observes that the graph demonstrates that the number of active DPAs has been in steady decline for the past

three years and that the number of active DPAs has now reached the lowest level in the past five years. *Id.* at 31.

The AG adds that not only is Peoples Gas entering into fewer payment arrangements with customers, but those customers who *are* entering into payment arrangements are increasingly likely to default on those arrangements. Mr. Colton included data showing that although there was a slight decline in the ratio of broken-to-active DPAs in late 2013 to early 2015, the ratio of broken-to-active DPAs since early 2015 has increased significantly. In March 2015, there were 0.14 broken DPAs for every active DPA, by December 2016, there were 0.28 broken DPAs for each active DPA, and by March 2017, the ratio of broken-to-active DPAs had reached 0.36. In recent months, the ratio of broken-to-active DPAs has reached the highest level in the five-year period. *Id.* at 32-33.

According to the AG, this data demonstrates that not only are PGL's customers having an increasing problem with unpaid bills (incidence of arrearages; depth of arrearages; age of arrearages), but also that DPAs are not sufficiently available to help retire those arrearages. Fewer customers are entering into DPAs than have historically occurred, and fewer customers who *do* enter into DPAs are able to successfully complete those DPAs. These increased arrearages are associated with higher bills.

The AG argues that Peoples Gas's proposed SMP will exacerbate these problems. *Id.* at 33. The AG adds that PGL disputed none of these points. AG Ex. 9.0 at 11; AG Ex. 8.0 at 16.

The AG asserts that Peoples Gas' reports filed pursuant to Part 280.180(h) (83 Ill. Admin. Code 280.180(h)) in recent years show the ineffectiveness of the Company's DPA processes. For example, according to PGL's 2015 reports to the Commission, in 2015, the Company had 11,692 disconnected accounts as of September 15th. The Company entered into 959 DPAs, 726 of which (76%) had defaulted by March 31, 2016. Similarly, according to the Company's 2014 reports, PGL had 14,077 accounts disconnected from the system as of September 15th. The Company entered into 1,393 payments plan, 1,105 (79%) of which had defaulted by March 2015. AG Ex. 8.0 at 17.

The AG asserts that these numbers demonstrate a clear problem in retaining customers on the PGL network due to affordability issues. The AG states that the difficulties customers currently have paying their Peoples Gas bills support a Commission order adopting one of the AG recommended SMP alternatives. The AG adds that the data support: (1) an investigation of the Company's collection practices after the close of this docket to determine what changes in practice should be taken to ensure that the maximum number of customers remain connected to the Peoples Gas network; or, at a minimum, (2) requires the Company to work with consumer stakeholders and Staff to reach consensus on modifications to the Company's revenue collection practices with the goal of minimizing disconnections in Peoples Gas' service territory.

The AG explains that Mr. Colton also examined the rate at which final notices of disconnection actually lead to the disconnection of service. Although there are times when customers respond to a final notice of disconnection by making payment on their bill and avoiding disconnection, customers are not capable of engaging in this payment

response as arrearages become increasingly overwhelming. In such circumstances, the final notice of disconnection is followed by actual disconnection of service. The AG states that given the increasing arrearage problems, and the decreasing ability of customers either to enter into a DPA, or to successfully complete a DPA, PGL data make clear that there is an increasing rate at which the threat of service disconnection is subsequently followed by the actual disconnection of service.

The AG states that Mr. Colton also analyzed the ratio of final notices of disconnection to involuntary disconnections of service for nonpayment for the past five years. Mr. Colton testified that the rate at which the Company is disconnecting service to customers who receive a final notice of disconnection (outside of the winter disconnection moratorium) reached a high point in August 2016 in this five-year period. The AG claims that Peoples Gas did not dispute that point. The AG asserts that these data show that significant numbers of PGL customers are already have a declining capacity to pay arrearages to avoid disconnection of service. As a result, customers who receive a disconnect notice are increasingly likely to be disconnected. The significant bill increases associated with the Company's proposed SMP can only exacerbate this trend. AG Ex. 5.0R at 34-35.

The AG explains that based on his review of all of this information, Mr. Colton concludes that the substantial increase in natural gas bills to be imposed on Company customers as a result of the gas main replacement program can be expected to have serious adverse consequences for those customers unable to afford their bills. Mr. Colton testified:

- ▶ Increasing natural gas bills are leading to an increase in the level of arrearages of customers having arrearages (*i.e.*, the “depth” of arrears);
- ▶ Increasing natural gas bills are leading to an increased proportion of customers having arrears (*i.e.*, the “incidence” of arrears);
- ▶ Increasing natural gas bills are leading to an increased time during which dollars are in arrears (*i.e.*, “bills behind”);
- ▶ DPAs are less available as a mechanism through which customers can address their unpaid bills;
- ▶ Of those DPAs that are available, an increasing proportion are ineffective at enabling customers to successfully complete them to retire their arrears; and
- ▶ An increasing proportion of customers facing the threatened disconnection of service are unable to take sufficient remedial action to avoid being disconnected. *Id.* at 36.

The AG avers that all of these points are important to the Commission's assessment of health and safety concerns associated with Peoples Gas' proposed SMP. They point to the need to moderate both the pace and scope of the SMP, and support adoption of the more affordable AG proposal to better balances the affordability of PGL service and the health and safety goals that are inherent in maintaining essential utility service.

There are significant public health and safety risks associated with these increases in arrearages and collection problems. The AG notes that although PGL asserted that “public safety is always the primary consideration” (PGL Ex. 5.0 at 51), the physical condition of the utility’s system is not the only threat to public health and safety. The AG argues that the affordability issues identified by Mr. Colton – the only witness in the case to address affordability of the Company’s SMP proposal – pose real, identifiable, quantifiable, and severe public health and safety risks as well.

The AG states that for many years, the National Energy Assistance Directors’ Association (“NEADA”) undertook a Congressionally-funded survey of LIHEAP recipients. The NEADA surveys identified, and quantified, the public health and safety risks associated with the inability of low-income customers to pay their home heating bills. Among the health and safety risks that NEADA identified as arising from an inability-to-pay are:

- ▶ 23% of LIHEAP recipients kept their homes at what they believed to be unsafe or unhealthy temperatures in the past year due to not having enough money for their energy bills (NEADA 2011 at 24);
- ▶ 33% of LIHEAP recipients used their kitchen stove or oven to provide heat in the past year due to not have enough money for their energy bill (NEADA 2011 at 27);
- ▶ 7% of LIHEAP recipients were unable to use their main source of heat in the past year because their gas or electric service was discontinued for nonpayment (NEADA 2011 at 38);
- ▶ 6% of LIHEAP recipients were evicted from their home or apartment in the past five years due to unpaid utility bills, while 4% had their home mortgage foreclosed for this reason (NEADA 2011 at 38);
- ▶ 25% of LIHEAP recipients went without food for at least one day in the past five years due to energy bills (NEADA 2011 at 42);
- ▶ 41% of LIHEAP recipients went without medical care or dental care in the past year due to energy bills (NEADA 2011 at 42);
- ▶ 34% of LIHEAP recipients did not fill a prescription, or took less than their full dose, within the past five years due to energy bills (NEADA 2011 at 42).
- ▶ 19% of LIHEAP recipients had someone in the home become sick because the home was kept too cold in the past five years (NEADA 2011 at 43);
- ▶ 13% of LIHEAP recipients had someone in the home become sufficiently sick that they needed to go to the doctor, or to the hospital, because the home was too cold in the last five years. (NEADA 2011 at 43); and
- ▶ Households with children and disabled members were the most likely to become sick and need to go to the doctor or hospital because the home was too cold (NEADA 2011 at 43). AG Ex. 5.0R at 27.

The AG argues that this analysis shows that although PGL is correct that one of its primary concerns should be public safety, the Company is too focused on a single, narrow, aspect of public health and safety. The Commission's PGL SMP investigation in this docket must account for all types of public health and safety issues related to natural gas service.

The AG points out that Section 8-101 of the Act provides in relevant part that "A public utility shall furnish, provide, and maintain such service instrumentalities, equipment, and facilities as shall promote the *safety, health, comfort, and convenience* of its patrons, employees, and public...." 220 ILCS 5/8-101 (emphasis added). Staff noted in its Staff Report accompanying the Initiating Order this docket that there may well be "interrelationships among the issues" of "safety, reliability and affordability" and that "a change in one [may] affect[] the others." Staff Report at 10 (May 31, 2016).

The AG states that in applying this standard, the public safety and health risks imposed on the thousands of customers who are unable to pay the increased bills associated with the Company's gas main replacement program are far more wide-spread, and far more likely to occur, than the public safety risks it is seeking to mitigate by engaging in the program in the manner proposed. The AG notes that both PGL and Staff ignore the public health and safety impacts associated with unaffordability, even though those impacts are real and are considerable.

The AG adds that when the above-referenced data is combined with the data discussed in the affordability discussion (documenting that incomes cannot be expected to increase sufficiently to prevent the deterioration of existing affordability problems even more as a result of the gas main replacement program), it is undeniable that the gas main replacement program will significantly exacerbate adverse health and safety risks to its customer base, and to the public. The Commission should ensure in its Final Order in this docket that this increase in health and safety risks to customers and the public that is part of the inability to afford utility service is accounted for in its review of the design and funding of the gas main replacement program.

The AG asserts that in contrast to the risks of disconnection and the health and safety risks associated with seeking to avoid disconnection, shareholders of the companies owning Peoples Gas have prospered in recent years. For example, from February, 2008 through June, 2015, Integrys' (PGL's former parent company) share price increased by more than 40%. More recently, the WEC Energy Group (PGL's current parent company) recorded net income of \$1.12 per share for the first quarter of 2017, an increase from \$1.09 per share in the first quarter of 2016. Net income for WEC Energy increased from \$346.5 million to \$356.9 million from the first quarter of 2016 to the first quarter of 2017. AG Ex. 5.00R at 40.

The AG adds the for the full year of 2016, WEC Energy recorded net income of \$939.0 million, or \$2.96 per share, an increase from \$638.5 million, or \$2.34 per share, for the full year of 2015. Excluding acquisition costs, WEC Energy's earnings per share increased from \$2.64 in 2015 (full year) to \$2.97 per share in 2016 (full year). In 2016, WEC paid dividends of \$1.98 (full year) to holders of common stock, an increase from \$1.74 in 2015. *Id.* at 40.

The AG avers that the increased earnings continued in 2017. In January 2017, the WEC Energy board of directors declared a dividend of 52 cents per share, an increase of 5.1% over the previous quarterly dividend of 49.50 cents per share. This increase represented the 14th consecutive year of dividend increases to Company stockholders. *Id.* at 40.

The AG concludes that Mr. Colton's uncontroverted testimony demonstrates that WEC Energy Group and its stockholders are thriving and clearly not facing the same economic risks faced by PGL's lower- income customers. Large numbers of PGL customers currently cope with losing natural gas service or rationing natural gas use such that: (1) they get sick, often to the point of needing to go to a doctor or to a hospital; (2) they skip medical and dental care, go without food, and skip medicines; and/or (3) they are being evicted from apartments or losing their homes due to foreclosure. The SMP will only make these problems worse. *Id.* at 41.

The AG argues that the Commission has an obligation in this proceeding to balance the interests of both customers and utility shareholders. Landmark cases that explore the required balancing of interests make clear that the affordability of rates is paramount. For example, in the rate making process under the PUA, *i.e.*, "the fixing of 'just and reasonable' rates[,] involves a balancing of the investor and the consumer interests.'" *Illinois Bell Telephone Co. v. Illinois Commerce Comm'n* (1953), 414 Ill. 275, 287, 111 N.E.2d 329, quoting *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591, 603, (1944). The Illinois Supreme court established that a just and reasonable rate must be less than the value of the service to consumers. *State Public Utilities Comm'n ex rel. City of Springfield v. Springfield Gas & Electric Co.*, 291 Ill. 209, 216, 125 N.E. 891 (1919). The appellate court elaborated on this pronouncement in *Camelot Utilities, Inc. v. Ill. Commerce Comm'n*, 51 Ill.App.3d 5, 10, 365 N.E.2d 312 (1977), wherein the Court declared that it is the *ratepayers' interest* which must come first:

The Commission has the responsibility of balancing the right of the utility's investors to a fair rate of return against the right of the public that it pay no more than the reasonable value of the utility's services. While the rates allowed can never be so low as to be confiscatory, within this outer boundary, if the rightful expectations of the investor are not compatible with those of the consuming public, it is the latter which must prevail.

Camelot Utilities, 51 Ill.App.3d at 10; *Citizens Utility Bd. v. Ill. Commerce Comm'n*, 276 Ill.App.3d 730, 658 N.E.2d 1194 (1995).

The AG alleges that these cases stand for the proposition that the Commission must balance customer and shareholder interests in its investigation and findings in this case. The AG adds that PGL does not dispute this, stating that considerations of cost impacts, value, selection of the most cost-effective option, executing this option as efficiently as possible and prudence all enter into the Commission's investigation and conclusions with respect to the SMP. PGL Ex. 8.0 at 17. Adoption of the Company's proposed SMP, which would authorize an annual spend of \$300 million per year, would

lead to a financially devastating cycle of rate increases and monthly surcharges, and unequivocally tips the balance of interests served in favor of WEC shareholders.

The AG concludes that although the Company's gas main replacement program addresses public safety concerns, gas main safety is not the exclusive means by which the Company's actions and inactions affect public health and safety. The unrebutted testimony of AG witness Colton demonstrates that natural gas bills increase to unaffordable levels, public safety is threatened by the loss of utility service. The data Mr. Colton presented documents how the incurring arrears, and the subsequent loss of utility service due to involuntary disconnections for nonpayment, are closely associated with increasing natural gas bills. Loss of – or rationing of – service, in turn, causes serious public safety concerns for customers who are unable to afford their gas bills.

The AG adds that the data Mr. Colton reviewed, as discussed in Section VII.B, demonstrate that these public safety concerns are not limited exclusively to "low-income" customers. They extend to thousands of gas customers who are not low-income as measured by median income. The Commission must consider these health and safety risks as it considers the proper scope and timeline of the PGL main replacement program.

(iv) Sargent Shriver's Position

Sargent Shriver states that a variety of evidence already before the Commission indicates that, as currently structured, Peoples Gas' main replacement program stands to explode the costs of heating currently paid by Chicago customers. Since the program's inception, Peoples Gas has steadily increased its estimates of the cost of main replacement, from \$2.63 billion, in 2009 to over \$6 billion in 2014. PGL Ex. 1.0 REV at 32:642. Those costs will be passed on to customers in their heating bills through the QIP Rider used by Peoples to recover its costs. PGL Ex. 1.0 REV at 14.

According to AG witness Sebastian Coppola's testimony, even under the best-case scenarios advanced by Peoples Gas, the average customer will be responsible for paying around \$14,500 for main replacement over the life of the program. AG Ex. 2.0R at 24. Customers can expect a 4% annual increase in rates associated with AMRP, which would equal a 100% increase on heating costs for Peoples Gas customers over 25 years, *in addition* to any costs associated with new rate cases. Based on Peoples Gas' recent history of rate cases, which have increased delivery costs of natural gas for Chicago customers nearly every other year, there is every indication that Peoples Gas customers will experience intermittent spikes in their heating costs alongside the steady increases associated with AMRP. Mr. Coppola's testimony supports this expectation, as "[p]otentially higher gas prices in coming years will exacerbate customers' gas bills that are already increasing because of AMRP investments." AG Ex. 2.0 at 44.

Sargent Shriver argues that the evidence concerning expected rate increases because of AMRP provided at earlier stages of the proceedings adds critical context as to the ways that Peoples' current main replacement plan will affect its customers; families who already cannot afford their heating bills should expect them to increase. The central question is how much. As laid out below, faster increases in heating bills will disproportionately harm people of color and low-income people in Peoples Gas' service area. The harms these populations will experience are in many cases life-threatening.

The scale of the impact will depend heavily on how the Commission decides Peoples Gas' approach to main replacement.

As the record demonstrates, an alarming number of Chicagoans currently either have difficulty paying their heating bills or cannot afford them at all. The fact that natural gas services in Chicago are already unaffordable necessitates then the need to consider any possible rate increases related to main replacements. If in fact "the real impact [of the SMP is] nearly four-fold higher than what Illinois legislators had anticipated when they approved bill surcharges for infrastructure improvements" amid "seven years of rising utility rates" and these are not accompanied by a compelling showing of improved safety, the Commission must order changes to the structure of Peoples Gas' main replacement program.

In the United States, low-income households bear an unreasonably high energy burden in paying for the light and heat in their homes as compared to more well-off homes. The median energy burden — defined as the percentage of income a person spends on utilities — for low-income households nationally is more than two-times the burden of a household with a median income. Ariel Dehobl & Lauren Ross, American Council for an Energy Efficient Economy, *Lifting the High Energy Burden in America's Largest Cities: How Energy Efficiency Can Improve Low-Income and Underserved Communities*, 11 (Apr. 2016). Life in urban areas widens the gulf between low- and middle-income households, as low-income households in cities are far more likely to live in unrenovated buildings that were built prior to the widespread use of energy efficient materials. Rick Nevin, *Energy Efficient Housing Stimulus That Pays for Itself*, Energy Pol'y 4 – 11 (Jan. 2010).

Sargent Shriver points out that in Chicago, the utility problems low-income families confront are starker. In 2013, 56.4% of low-income households faced energy burdens that were more than twice the citywide median. Dehobl & Ross, *Energy Burden, supra*, at 50. As a result, the majority of low-income households in the city are paying double the percentage of their gross income than the median city household to cover utility costs. *Id.* at 10. More than half of low-income Chicagoans also have utility costs that are either more than 6% of their gross income. *Id.* The latter metric also shows that most low-income families in Chicago face heating bills that are unaffordable, as defined by Illinois's Energy Assistance Act, which states a Percentage of Income Payment Plan participant should contribute "no more than a total of 6% of their relevant income for gas and electric utility bills combined." 305 ILCS 20/18(c)(2).

AG witness Colton's testimony supports the conclusion that heating bills area increasingly difficult to pay for Peoples customers. Data analyzed by Mr. Colton showed that in recent years: Peoples customers have accumulated increasing amounts they owe in natural gas arrearages; an increasing number of customers owe those arrearages; those customers owe arrearages for longer and longer periods; deferred payments are not especially useful in eliminating long-term debt to Peoples; and it is becoming more difficult for Peoples customers to use deferred payment to avoid disconnection. AG Ex. 5.0 at 36.

Sargent Shriver notes that current economic trends among low-income Chicagoans worsen the outlook for affordability in the midst of rising natural gas costs

associated with projected main replacement costs. While middle- and high-income customers in Chicago did see gains in median incomes, Mr. Colton testified that economic conditions for Chicagoans with the lowest incomes did not improve between 2011 and 2015. *Id.* at 15. Mr. Colton's testimony also indicates that the number of households in deep poverty is also growing, with the percentage of census tracts with mean incomes of \$4000 or less increasing by almost 40% between 2011 and 2015. *Id.* at 16. Given this increase in deep poverty, low-income Peoples Gas customers will be even less likely to be able to weather large increases in their heating bills.

Federal and local assistance intended to help low-income Americans pay for fuel costs is unlikely to alleviate added financial strain of higher heating bills. For example, AG witness Colton's testimony makes it clear that LIHEAP is inadequate to make up the gulf between low-income consumers' finances and the high cost of Peoples Gas bills. LIHEAP is capped at the amount that the federal government makes available, and both the funds available for the program and the number of customers benefitting from have decreased in recent years. *Id.* at 23. Furthermore, even this shrinking number of beneficiaries might be in jeopardy, where the Trump administration's most recent budget proposals have suggested eliminating the LIHEAP program entirely. United States Office of Management and Budget, *America First: A Budget Blueprint to Make America Great Again*, 22 (2017).

Throughout Illinois, utilities customers also suffered shutoffs or threats of shutoffs as the Illinois budget impasse forced changes to LIHEAP applications. John Reynolds, LIHEAP program delayed by state budget impasse, *State Journal-Register* (Sep. 1, 2015). Similarly, Peoples Gas' "Share the Warmth" program provides help to only a small number of Chicagoans who are unable to afford their bills. Available program funds are insufficient to even cover the number customers who have been cut off from LIHEAP benefits in recent years, let alone to account for the additional tens of thousands of Chicagoans who struggle to pay for heat. AG Ex. 5.0 at 25.

Sargent Shriver states that it is undisputed by Peoples Gas that the effect of its main replacement program will be a financial hardship for some portion of its customer base. Without providing a definition or estimating a number, Mr. Hesselbach testified that its system modernization plan "may cause a strain for some customers." PGL Ex. 5.0 at 51. The question before the Commission, then, is not if low-income households will be harmed by Peoples' actions but how many households that will be affected, and the extent of the harms that they will suffer.

In addition to the impacts that rapidly increasing heating costs will have on low-income Peoples Gas customers, generally, African-American and Latino customers at many income levels stand to suffer disproportionate harms due to current main replacement program. Unaffordable heating harms are magnified in communities of color both because of the uneven distribution of income necessary to make natural gas affordable, and because the racial demographics of outsized energy burdens. The racial inequities expressed across expected increases in unaffordable heating weigh in favor of limiting the rate impacts of main replacement projects.

In Chicago, African-American and Latino households are more likely than White households to live in poverty, with 29.2% of African-American households and 21.6% of

Latino households in Chicago living below the federal poverty line, as compared to only 5.4% of White households. U.S. Census Bureau (2011), *Poverty Status in the Past 12 Months of Families, 2011-2015 American Community Survey 5-Year Estimates*. Furthermore, despite comprising only 31.3% of all households in Chicago, African-American households represent 50.9% of households below the federal poverty line in the city. U.S. Census Bureau (2011), *Poverty Status in the Past 12 Months of Families, 2011-2015 American Community Survey 5-Year Estimates*. Similarly, Latinos live below the federal poverty line at disproportionate rates, representing 29.1% of all households and 33.8% of total households below the federal poverty line. U.S. Census Bureau (2011), *Poverty Status in the Past 12 Months of Families, 2011-2015 American Community Survey 5-Year Estimates*. The Colton testimony punctuates this reality, showing that communities of color are more likely to have experienced declines in their median incomes as the cost of utilities has increased, disproportionately limiting their ability to absorb the effects of main replacement on their natural gas bills. AG Ex. 5.0 at 13.

Communities of color also experience the costs of utilities differently than their white counterparts, regardless of income. For example, across all income levels, 52.8% of Chicago's African-American households have energy burdens of more than twice the citywide median energy burden largely due to living in less energy efficient housing. Dehobl & Ross, *Energy Burden*, *supra*, at 18–19, 48. In comparison, only 29.1% of all Chicago households, again across incomes, have energy burdens at the same level. *Id.* at 48. With African-American families already more likely to be overburdened by their energy bills, any program that would speed increased cost of heat over time for Chicago consumers would exacerbate harms that are already skewed along racial lines. Sargent Shriver states that the numbers related to natural gas affordability among low-income customers are staggering, but they become even more troubling if the events that befall households who cannot pay their heating bills are considered. People with energy burdens that exceed affordability face a variety of harms, which include frequent utility arrearages, utility shutoffs, high levels of stress, and health problems due to inadequate heating and cooling. Diana Hernández & Stephen Bird, *Energy Burden and the Need for Integrated Low-Income Housing and Energy Policy*, 2 *Poverty & Public Policy*, 5 (Nov. 2010). Families also confront secondary risks associated with the buildup of financial strain as utility bills pile up over time, including such as being forced to choose between paying utility bills and meeting other financial obligations, and in some cases, eviction for inability to pay rent.

AG witness Colton put it clearly: “[i]t is important to understand that the gas main leaks which the Company proposes to fix through its gas main replacement program are not the only risks to public health and safety caused by the actions and inactions of the company.” AG Ex. 5.0 at 4. Myriad dangers to consumers stem from unreasonably priced essential utilities, including the natural gas sold in Chicago by Peoples Gas. Colton's testimony, statements from low-income customers to the Commission, and demographic data illustrate why the Commission must consider how utility rates affect low-income Peoples Gas customers as it charts the future for gas main replacement.

Unsurprisingly, increases in the cost of heating for Chicago households result in financial strain for low-income families, as they are left with less money to pay for other

needs. In these circumstances, families will forego nutritional needs, basic self-care, and discretionary expenses that others might take for granted.

Testimony presented to the Commission concerning impacts of high heating costs on Peoples customers provides numerous examples of how unaffordable natural gas costs can overwhelm customers, even when they manage to keep the heat on. Illinois Commerce Commission Regular Open Meeting Minutes (“Open Meeting Minutes”), at 7 (Mar. 1, 2017). Roger Colton’s testimony places narrative examples provided by customers in context, as he points out the alarming frequency with which financial assistance falls short of helping families pay their heating bill and also pay for essential expenses. According to Mr. Colton, as of 2011, 25% of LIHEAP recipients reported going without food of at least one day in five years; 34% of recipients either chose not to fill prescriptions or stretched their supply of medication by taking less than their recommended dose due to financial costs imposed by energy bills over five years; and 41% of recipients went without medical or dental care during the course of a year. AG Ex. 5.0 at 38 (citing National Energy Assistance Directors’ Association Survey (2011)). Thus, the record makes clear that modernization plans that increase the heating costs of Peoples Gas’ customers presents clear risks to low-income households in Chicago.

The most direct consequence that can be expected due to main replacement’s effects on residential heating costs is disconnection from Peoples natural gas service, or threats of disconnection. Evidence before the Commission indicates that disconnections are already alarmingly common, as tens of thousands of accounts were disconnected, and hundreds of thousands were threatened with disconnection in the recent past. Mounting debts among customers indicate that the problem of disconnections will persist in the foreseeable future, especially if projected increases in customers costs associated with Peoples Gas’ main replacement project come to fruition.

Data from the 2013-2014 winter shows that 230,000 Peoples Gas accounts received disconnection notices for non-payment and 77,000 accounts were disconnected. AG Ex. 2.10 at 2. Considered in the context of Peoples 661,000 residential heating customers, this means that around 35% of Peoples Gas customers were threatened with disconnection, *while more than one-in-ten actually stopped receiving heat*. AG Ex. 2.0R at 50.

Even where customers might otherwise have the financial means to pay their heating bills, unexpected shocks such as medical expenses, automobile repairs necessary for transportation to employment, and family needs can leave individuals with depleted financial resources for months on end. Costs after reconnection present their own shocks to customers, who scramble to pay increased bills. One Peoples Gas customer appearing before the Commission testified that a bill she received after having her service reconnected was \$400, more than half of the amount she pays for her rent. Open Meeting Minutes at 25 (Mar. 1, 2017).

Clearly, the complete loss of a household’s heat via disconnection is a public health risk, as cold temperatures are common outside of Illinois’ disconnection prohibition period in the Peoples Gas service area. However, even where customers do not lose heat entirely due to disconnection, the high price of heating creates a more insidious danger to low-income Peoples Gas customers. Families who are worried that they cannot

pay to adequately heat their home commonly set their heat to dangerously low temperatures. The 2011 NEADA study relied upon by AG witness Colton found that 23% of LIHEAP recipients kept their homes at what they believed to be unsafe temperatures at one or more points in the year because they could not afford their energy bills. See AG Ex. 5.0 at 37.

The same study showed that 13% of LIHEAP participants got sick enough to warrant visiting a doctor at least once over 5 years because their houses were not sufficiently heated. *Id.* at 38. Peoples Gas customers testifying before the commission also demonstrated human face of disconnections and insufficient heating.

The current SMP project will only exacerbate these harm to the health of Peoples Gas' low-income customer base. For some, it will result in disconnections during cold winter extending beyond months where heating disconnection is prohibited. For others, customers will attempt to limit heating costs by lowering their heat to unsafe levels.

When families cannot pay their heating bills or fear keeping their homes at a reasonable temperature with conventional gas heating, many turn to alternative methods of heating single rooms or smaller spaces in their homes. According to Mr. Colton, if left unchanged, Peoples Gas' proposed SMP and its associated rate increases "will cause thousands of Chicago residents to be in danger from using unsafe heating sources (e.g. portable space heaters, stoves and ovens) in lieu of unaffordable gas heating." AG Ex. 5.0 at 6.

Families' use of space heaters to replace gas heating, while common, is an especially troubling practice. A 2016 study by the National Fire Protection Association found that 84% of home heating fire deaths involved the use of space heaters. National Fire Protection Association, *Home Fires Involving Heating Equipment*, 1 (Mar. 2016). While dangers related to aging gas mains certainly warrant consideration, the relationship between space heaters and fatal home fires presents a serious counterpoint to the contention that dangerous pipeline is the most pressing safety issue presently before the Commission.

Kitchen stoves and ovens may also present serious health risks when used a heating source. The NEADA study cited by the AG expert Colton shows that unaffordable energy bills can cause households to turn to stoves and ovens as dangerous alternatives to their main source of heat, with 33% of LIHEAP recipients using their kitchen stove or oven to heat their home over a one-year period, due to their inability to pay energy bills. Colton AG Ex 5.0 at 37:722–24. Testimony to the Commission during public hearings also demonstrated anecdotal evidence of the perils of alternative heating methods faced by families who could not afford their heating bills observed by community members.

Sargent Shriver urges the Commission to consider the serious safety threats that Peoples customers will face if their utility rates are not kept in check. These threats may outnumber or outweigh the risks presented by aging pipe that the main replacement program is intended to alleviate. Families whose utilities have been disconnected face many difficulties in attempting to restore service to their homes. Among them, families spent significant time discussing the reason for utilities disconnections with the company

and attempt to negotiate a re-connection. Additionally, a family may also have to secure new housing or take on additional employment just to pay for their heat.

There is a close connection between housing instability, homelessness, and unaffordable utilities. In fact, federal law requires public housing authorities to terminate or evict public housing residents and Housing Choice Voucher households who have their utilities shut-off due to non-payment. See e.g. Chicago Housing Authority's Administrative Plan, Chapter 18, Section IV.Q.

Section 8 of the Chicago Housing Authority ("CHA") Public Housing Residential Lease establishes the resident's obligations, stating that failure to comply with these obligations "will subject the family to lease termination." See FY2015 Residential Lease Agreement, Section 8, p. 13, *available at* <http://www.thecha.org/about/plans-reports-and-policies/>. One of the resident obligations is to maintain and maintain utility connections and comply with the CHA utilities policy. *Id.* Although 24 CFR 965.502 requires the CHA to subsidize the cost of tenant-paid utilities through a utility allowance, the allowance does not cover a tenant's actual consumption of utilities and is instead determined through a formula based on projected uses by an energy conservative tenant. Thus, these low-income households, when compared to other Peoples Gas customers, face a greater risk of losing their homes because they cannot pay their utility bills.

Households of color make up more than 80% of the participants in both Chicago's public housing (21,000 in CHA) and in the Housing Choice Voucher program (80,000 in CHA) residents of the listed subsidized properties. Chicago Housing Authority, *CHA Quarterly Report, 2nd Quarter 2017*, 19 (June 30, 2017) *available at* http://www.thecha.org/assets/1/6/Q2_2017_CHA_Quarterly_Report.pdf. Once a public housing or Housing Choice Voucher household is evicted from these federal housing programs, it is close to impossible to secure new federally assisted affordable housing. The evicted household will have to pay off the debt owed and then re-apply for the public housing or Housing Choice Voucher programs. Given the fact that there are far more people eligible for public and subsidized housing than available units and vouchers, eligible households often languish for years on waitlists or even worse, the waitlists are closed for years on end.

For the Chicago Housing Authority's Housing Choice Voucher program, the waitlist has been closed as of the filing of this brief. The Housing Choice Voucher waiting list was last opened in 2014, when more than 282,000 households applied to the CHA's lists for public housing, property rental assistance, and the voucher program. See, e.g., Press Release, *CHA Waitlist Lottery Officially Closes as More Than 282,000 Households Register for Affordable Housing*, Chicago Housing Auth., November 25, 2014.

Prior to 2014, the Housing Choice Voucher list had not been opened since 2008. Newman, *supra*. As of June 2017, according to the CHA's data, more than 100,000 applicants remain on the CHA's waitlists for public and subsidized housing, with almost 42,000 of those applicants on the HCV waiting list. Chicago Housing Authority, *CHA Quarterly Report, supra*, at 20. Thus, the termination from the public housing or Housing Choice Voucher program due to utility shut-offs results is often times a decades-long or even permanent exclusion from these important federal affordable housing programs. Rising natural gas rates thus risk their hard-sought affordable housing. The

Commission's decision to leave 19 the present main replacement plan in place could only further expose public housing residents and Housing Choice Voucher holders to eviction and homelessness.

7. Commission Analysis and Conclusion

As consistently emphasized by the Commission, public safety and reliability of Peoples Gas' distribution system remain the primary purpose of the SMP. It appears all parties agree with this focus. The Commission finds that Peoples Gas has properly prioritized public safety in structuring its SMP. The Commission also finds that the UMRI prioritizes replacement of the most at-risk pipes. The Commission notes that based on PHMSA's "Call to Action," the Company must continue to focus on the expedited removal of at-risk facilities. Peoples Gas' procedures for grading leaks appears to be in line with PHMSA's guidelines. There is evidence around the country that removal of vulnerable mains including cast and ductile mains is necessary to reduce the risk of further problems with gas supply systems.

The Commission is concerned with the affordability and safety related to the provision of gas service. The Commission must ensure that the system is safe. In a long term project like this it will be necessary for the Commission to continue to monitor the ramifications of the SMP. The Commission and other stakeholders will continue to work with the Company to find ways to enhance the project and reduce costs to allow for the completion of the project. The Commission also finds that there are other interests, such as efficiency, coordination, cost, rate impact and customer satisfaction that are important considerations and further finds the SMP design appropriately prioritizes safety while also taking these other factors into account.

III. PROGRAM PLANNING PERIODS

A. Peoples Gas' Rolling Three-Year Plans

1. Peoples Gas' Position

Peoples Gas proposes a rolling, three-year planning and implementation approach to the SMP. PGL Ex. 1.0 at 18. Peoples Gas explains that each three-year plan will be "refreshed" at the end of each year and then updated to add another year. *Id.* at 18, 21. Peoples Gas maintains that the rolling, three-year SMP plan will deliver benefits such as: (1) giving the Company better flexibility to adapt to changes in the City's and other stakeholders' infrastructure plans, including shifting work between years; (2) allowing the Company to adopt new construction techniques; (3) enabling Peoples Gas to better measure program cost and progress; and (4) allowing Peoples Gas to implement new and better approaches to project execution. *Id.* at 18-19. Peoples Gas further explains that the rolling, three-year SMP plan will allow the Company to more accurately measure performance and move away from long-term plans that have proven to be unhelpful in managing year-to-year -- let alone day-to-day -- SMP decisions. *Id.* at 19.

2. Staff's Position

Staff points out that Peoples Gas is proposing three-year rolling plans, with the "most at-risk components" targeted for action each year. PGL Ex. 1.0R at 18. Staff understands Peoples Gas witness Hesselbach to state that the rolling three-year plan will

allow Peoples Gas to implement new, better approaches that will benefit customers and allow Peoples Gas to more accurately manage the pace and cost of the program. *Id.* Staff supports the rolling three-year plan. Staff witness Lounsberry noted that a rolling three-year plan provides scheduling flexibility for the Company to remove facilities which are considered vulnerable or at-risk in a timely manner. Staff Ex. 1.0 at 4.

3. AG's Position

The AG notes that Peoples Gas proposes that it proceed with the SMP using rolling three-year plans. Peoples Gas claims that there are four advantages to this approach: (1) it gives the Company better flexibility to adapt to changes in the City's and other stakeholders' infrastructure plans, including by shifting work between years as appropriate; (2) it allows Peoples Gas to adopt new construction techniques; (3) it allows the Company to adapt the SMP to future changes in federal, state and local regulatory requirements; and (4) it enables Peoples Gas to better measure program cost, progress and performance and to implement new and better approaches to project execution that will benefit customers. PGL Ex. 1.0 at 18-19.

The AG points out that there is no explanation why these benefits are exclusive to rolling three-year plans. The AG assumes that Peoples Gas would make such adaptations under any methodology by which it modernizes its system. Indeed, failing to make such changes no matter the program approach would raise serious questions about the prudence with which the Company is implementing the program.

The AG states that it is not suggesting that Peoples Gas adopt a rigid, detailed plan in this case or in the near future detailing how it intends to complete its pipe replacement program and to never vary from that plan. The AG assumes that Peoples Gas will make needed changes as they arise whether the program is implemented in rolling three-year plans or through some other approach.

The AG has its concerns with Peoples Gas' proposed rolling three-year plans as they relate to the Company diminishing the need for establishing a total program cost estimate. While the AG understands long-term cost forecasts are not going to be accurate, it is important that an estimated total cost of the program and an expected completion date be kept in mind in order to determine long-term rate impacts and, as a result, customer affordability. Such a forecast, too, provides a basis for determining annual budgets in the short run.

4. City's Position

The City neither supports nor objects to Peoples Gas' proposal, or alternatives proposed by other parties and maintains that the Commission's choices in this case are not reduced to: (a) a series of short-term plans or (b) a single long-term plan, with each having the disadvantages of uncompromised purity. The City adds that the Commission can combine desirable elements from more than one proposal and states that a balanced approach could avoid short-term planning that is unconnected to an overall structure and lacks meaningful benchmarks. Similarly, a coherent structure that provides performance base lines and benchmarks need not be so lengthy that its projections become speculative. For the City, the planning periods used are less important than maintaining Peoples Gas' focus on (a) the safety and reliability objectives of the program --

replacement of high-risk infrastructure in Chicago and (b) efficient and cost-effective implementation. City-CUB Ex. 1.0 at 51-52.

In the City's opinion, the reporting requirements associated with any program framework are very important. Operationally, the City Department of Transportation ("CDOT") can accommodate short-term plans, long-term plans, or a combination of elements -- but only if appropriate monitoring, metrics, and reporting are incorporated. The City argues implementation efficiency and cost-effectiveness cannot be evaluated unless the metrics for SMP tasks are recorded and reported separately from other infrastructure work. As the Staff Report concludes and the Commission's auditor recommends, the applicable monitoring, metrics, and reporting regime must "be designed to match the pace and design of the program." Staff Report at 20; City-CUB Ex. 1.5 at V-10. The City concludes that a refocus of Peoples Gas' infrastructure program -- from risk-prioritized, accelerated replacement of vulnerable mains to modernization of broader categories of plant investment -- makes separate metrics and reporting more important.

The City states that the special performance evaluation difficulties presented by a rolling three-year plan, if it is approved by the Commission, heighten the importance of appropriate performance metrics and reporting protocols. The City argues that Peoples Gas' anticipated yearly plan modifications complicate any determination of appropriate performance benchmarks. The task is more difficult because Peoples Gas' program has been repeatedly changed, and meaningful performance base lines have not been established. According to the City, monitoring over at least two consecutive construction seasons -- with proper metrics collected, reported, and analyzed -- is required to establish base line costs, quantities, and schedules. City-CUB Ex. 1.0 at 54.

5. CUB's Position

CUB agrees with the City's position, as articulated in City-CUB witness Cheaks' testimony, and neither supports nor objects to Peoples Gas' proposal for a rolling three-year plan. City-CUB Ex. 1.0 at 51. Like the City, CUB does not see the Commission's choices in this case as a series of short-term plans or a single long-term plan and believes the Commission can combine elements from both short and long term plans. Mr. Cheaks confirmed that, operationally, CDOT can accommodate short term or long term plans (or a combination of elements), but only if appropriate monitoring, metrics, and reporting are incorporated. *Id.* CUB's position is that the performance metrics and reports on Peoples Gas' risk-based accelerated investments must be separate from reports on other Rider QIP eligible investments. *Id.* at 52.

CUB further maintains that its leak detection proposal will not interfere with the driving force of Peoples Gas' three-year plan: replacing aging cast iron and ductile iron main, increasing system pressure from low to medium, and relocating meters from inside to outside customers' residences. The technology will, however, allow Peoples Gas to more effectively prioritize the leakiest pipe for replacement after safety factors are appropriately taken into account, according to CUB.

6. Phase II

a. What is the appropriate balance of short term vs. long term goals and continuity from one planning cycle to the next planning cycle?

(i) Peoples Gas' Position

According to Peoples Gas, it is appropriate to consider both short-term and long-term goals as the SMP is implemented. PGL Ex. 5.0 at 21. The three-year plan allows the Company to plan and measure short-to-intermediate-term progress and goals in the context of the overall scope of the program. *Id.* Through the annual refresh process, the priority of work is re-evaluated and re-sequenced to minimize risk, coordinate work with the City and other stakeholders and reduce cost. *Id.*

(ii) Staff's Position

Staff states that the rolling three-year plan is a move away from long term forecasts which allows the Company to adapt the SMP to any future changes in federal, state, and local regulatory requirements, while focusing Peoples Gas, the Commission, and stakeholders on near-term execution. PGL Ex. 5.0 at 22-23. Staff believes the Company's rolling three-year plan is a reasonable approach and should be approved by the Commission. Staff Ex. 4.0 at 11.

(iii) AG's Position

The AG states that it is not opposed to PGL's proposal to implement the program using rolling three-year plans. However, the AG argues, the history of program mismanagement and repeated dramatic increases in the expected cost of the AMRP/SMP demand that long-term program cost be closely monitored.

(iv) CUB's Position

As CUB stated in the initial phase of this proceeding, CUB does not take issue with PGL's proposal to approach planning on a three-year rolling cycle.

b. How should the need to adapt to changing circumstances be balanced with the need for continuity of regulatory oversight?

(i) Peoples Gas' Position

Peoples Gas explains that its three-year plan gives it the flexibility to adapt to changing circumstances and, in conjunction with Rider QIP reconciliation proceedings, provides the Commission with comprehensive, continuing oversight. PGL Ex. 5.2 at 23.

The three-year plan allows Peoples Gas' management to implement new, better approaches that benefit customers and allow more accurate management of the pace and cost of the program. *Id.* In conjunction with executing the three-year plan, the Company will provide quarterly reports to the Commission on the metrics that are important to the Commission's oversight such as the total cost of main installed, the total number of miles of main installed, the number of meters moved, and the total cost of meters moved. *Id.* These reports will allow the Commission to fulfill its role in near real

time and spot positive or negative trends so that Staff can work with the Company to address them. *Id.*

An additional layer of regulatory oversight will occur through annual Rider QIP reconciliation dockets. *Id.* As discussed in greater detail in Section V.C.5, below, the PUA limits the amount of investment that the Company can recover through Rider QIP in a single year. *Id.* The PUA also requires an annual cost reconciliation proceeding before the Commission regarding SMP and other rider-eligible capital work. *Id.* This annual reconciliation proceeding provides both an accounting review and a prudence review of capital costs that are recovered under Rider QIP. *Id.*

Peoples Gas is required to file detailed cost and revenue data, testimony and other information in reconciliation proceedings. PGL Ex. 5.2 at 23-24. Staff and the parties have the opportunity to review the accuracy of the accounting reconciliation and investigate the prudence of SMP and other capital costs. *Id.* If the Commission finds that any costs were imprudent, it may order a refund of those costs to customers. *Id.*

In addition, each month, Staff receives detailed data supporting the Rider QIP surcharge, which allows it to ensure that the Rider QIP cap will not be exceeded. PGL Ex. 5.2 at 24. The Commission's rules also require an internal audit each year and describe five specific tests to be performed, including a showing that no double recovery has occurred. *Id.*

(ii) Staff's Position

Mr. Hesselbach testified that the rolling three-year plan will allow the Company to adapt the SMP to future change in federal, state and local regulatory requirements. PGL Ex. 5.0 at 22. It is Staff's opinion that this flexibility, combined with the reporting requirements that have been and will be imposed on the Company, will allow the Company to adapt to changing circumstances while maintaining continuity in regulatory oversight.

Mr. Hesselbach also explained that Peoples Gas must file detailed cost and revenue data, testimony and other information in reconciliation proceedings as part of the Commission's oversight of costs recoverable under its QIP rider, including SMP costs. He notes that Staff and parties may review the accuracy of the accounting reconciliation and investigate the prudence of SMP and other capital costs and the Commission may prohibit recovery of any costs it determines were not prudently incurred. PGL 5.0 at 24-25.

Peoples Gas' response to Staff Data Requests indicates that the Company will provide an annual update to its three-year plan (PGL Ex. 5.3) to the Director of the Safety and Reliability Division by February 1 of each year the SMP operates. Staff Ex. 5.0, Attachment 5.1. Staff recommends the Commission include in its Final Order in this proceeding a requirement that Peoples Gas file an update to its three-year plan (PGL Ex. 5.3) by February 1 of each year. Staff Ex. 5.0REV at 4.

c. What are appropriate short-term targets in a long-term schedule?

(i) Peoples Gas' Position

According to Peoples Gas, there are simply too many moving parts to comprehensively schedule with meaningful detail a program of the scope and complexity of the SMP over its entire term, which makes periodic plans like the rolling three-year SMP plan a more effective means of approaching the program. PGL Ex. 5.0 at 38-39. By setting short-term program goals in three-year increments, Peoples Gas will be able to more accurately measure program cost, progress and performance. *Id.* At the same time, the three-year plan will give Peoples Gas flexibility to incorporate new technologies to improve efficiency and lower cost over time. *Id.* Planning is broken into even shorter increments as a result of the annual re-ranking of neighborhoods. *Id.* As neighborhood prioritization is reevaluated each year and work is scheduled for the next three years, short-term targets and expectations are set. *Id.*

Against those targets, Peoples Gas will provide comprehensive quarterly reports on metrics so that the Commission and other stakeholders can evaluate progress and performance. *Id.*

(ii) Staff's Position

As Staff noted in Phase I, the Company proposed three-year rolling plans with the "most at-risk components" targeted for action each year. PGL Ex. 1.0 at 18. Staff does not take issue with the Company's assertion that there are simply too many moving parts to comprehensively schedule a program the scope and complexity of the SMP over its entire term, which makes periodic plans like the rolling three-year SMP plan a more effective means of approaching the program. Staff Ex. 4.0 at 17.

(iii) CUB's Position

As CUB stated in the initial phase of this proceeding, CUB does not take issue with PGL's proposal to approach planning on a three-year rolling cycle.

7. Commission Analysis and Conclusion

Under the neighborhood ranking system, the Company emphasizes the removal of the most at risk or vulnerable facilities in a timely manner. Given the size, scale, and complexity of the SMP, the Commission agrees with the Company's position that a three-year program will provide flexibility to adapt to any future changes in federal, state, and local regulatory requirements. This is necessary for the Company to manage the pace and the costs of completing such a large and complicated SMP. The Commission also notes that a rolling three-year plan provides scheduling flexibility for the Company to remove facilities which are considered vulnerable or at-risk in a timely manner. The Commission will continue to monitor the progress of this program going forward. The Commission approves Peoples Gas' use of rolling three-year plans. The Company shall submit an annual update of its "refreshed" rolling three-year plan to the Commission's Director of the Safety & Reliability Division by February 1st of each year.

B. AG's Proposed Long-Term Plan

1. AG's Position

The AG believes that the scope and pace of the modernization program should be defined by two criteria: (1) ensuring system safety and reliability; and (2) the cost and rate impacts of the investments needed to modernize the system. The AG explains that Mr. Neale's and Mr. Coppola's respective testimonies are meant to complement each other to provide the best means to achieve these objectives. Mr. Neale claims that the best approach for ensuring system safety and reliability is for the Commission to reject Peoples Gas' neighborhood approach and to "order the Company immediately to reconfigure its program to focus more resources on the worst-performing segments first with the goal of achieving greater levels of system risk reduction." AG Ex. 1.0R at 3. Mr. Neale's recommended approach should also allow Peoples Gas to reduce its annual expenditures on its main replacement program. *Id.* Mr. Neale added that Peoples Gas should employ his recommended plan to get its leak rates to a manageable level. *Id.* at 33-35. Once leaks are at a manageable level, Mr. Neale stated that Peoples Gas can use a neighborhood approach to take advantage of efficiencies embedded in area-wide approaches as it modernizes its distribution system at a moderated pace. *Id.* at 34.

The AG notes that Mr. Coppola's testimony analyzed the costs and rate impacts of different program timelines and annual capital expenditure levels. To ensure that customers are able to afford essential natural gas service, Mr. Coppola proposed that Peoples Gas' expenditure levels on its main replacement program be limited to \$130 million, escalated at 3% annually. AG Ex. 2.0R at 39-40. Mr. Coppola's proposed \$130 million capital expenditure starting point was taken from Peoples Gas witness Marano's proposal for the AMRP in Peoples Gas' 2009 Rate Case. Mr. Coppola explained that Mr. Marano's recommended AMRP expenditures in that case averaged \$130 million annually from 2011 to 2029. *Id.* at 39. Mr. Coppola added that his capital expenditure proposal of \$130 million escalated at 3% annually is consistent with what the Commission approved in the 2009 Rate Case and would be more affordable for Peoples Gas' customers. *Id.* at 39 - 40.

Mr. Coppola assumed that the overall cost of the modernization program would be \$9.69 billion. Mr. Coppola took this figure from the Burns & McDonnell report Peoples Gas submitted to the Commission to satisfy Condition #5 of the Commission's Order in Docket No. 14-0496, the WEC-Integrus Merger case. *Id.* at 40. Mr. Coppola explained that Burns & McDonnell developed six estimates of AMRP cost – an estimate for a 2030 completion date and an estimate for a 2040 completion date under three scenarios. The three scenarios in the Burns & McDonnell analysis, going from the lowest cost to the greatest cost are: (1) the New Management Target Case; (2) the Contingency Case with Higher Restoration Costs; and (3) the Peoples Gas Pre-Acquisition Case. *Id.* at 9.

Mr. Coppola testified that the cost-saving assumptions in the New Management Target Case are aspirational and that Peoples Gas presented little or no evidence that the cost savings are achievable. *Id.* at 11-13. Consequently, Mr. Coppola chose Burns & McDonnell's estimated cost under the Contingency Case with Higher Restoration Costs scenario and a 2040 completion date, or \$9.69 billion. The AG notes that applying Mr. Coppola's recommended \$130 million capital expenditure escalated at 3% annually to the

estimated \$9.69 billion modernization program cost results in a completion date of approximately 2053. *Id.* at 40.

The AG claims that it does have concerns about the future rate impacts of the Peoples Gas-Proposed SMP and notes that such impacts are not “speculative”; substantial rate impacts are a necessary result of any multi-billion-dollar capital investment program.

2. Peoples Gas’ Position

Peoples Gas points out that the AG opposes the Company’s rolling, three-year plan. Instead, the AG supports a 2053 end date for the SMP. AG Ex 1.0 at 3. Peoples Gas argues that the AG arrived at this 2053 end date by limiting capital investment to \$130 million per year with 3% escalation. AG Ex. 2.0R at 7, 39-43.

Peoples Gas explains that the rolling, three-year SMP plan will deliver benefits such as enabling the Company to better measure performance and to implement new and better approaches to project execution. PGL Ex. 1.0R at 19. For the same reasons Peoples Gas’ rolling, three-year plan is beneficial, Peoples Gas states that the AG’s long-term plan is unworkable. Peoples Gas argues that the plan for a large and complex construction program such as the SMP must be flexible; the AG’s proposed long-term plan provides for just the opposite and the record in this case does not support the creation of such a burden on the Company.

3. Staff’s Position

Staff states that the AG’s long-term proposal does not sway its support for the Company’s proposed rolling three-year plan. It is Staff’s position that the Commission should reject the AG’s argument that the Company should be ordered to “reconfigure its program to focus more resources on worst-performing segments first with the goal of achieving greater levels of risk reduction.” AG Ex. 1.0R at 34. Despite the AG’s claims to the contrary, Peoples Gas replaces any segment that scores six or higher on the UMRI. AG Cross Ex.14 at 2. Accordingly, the worst-performing segments are promptly replaced under the Company’s program.

Staff notes that there are two further significant flaws with the AG’s proposal. The AG’s proposal offers few, if any, specifics as to what the reconfiguring of the program would entail or how long it would take. Tr. at 375 (AG witness Neale concedes that he offers no specific plan or duration for such “reconfiguration”.) Also, the AG provides no guidance as to how the Company should address replacement work pursuant to the PHMSA Call to Action while the program is being reconfigured. *Id.*

Staff points out that the AG fails to consider that its own analyses are based on conclusions about the neighborhood ranking, which in turn are based upon historical data. Instead, the AG incorrectly assumes the current neighborhood ranking system is the cause of those conclusions. However, the Company’s current neighborhood ranking system was not instituted until 2016. Mr. Neale’s analysis of leak data used historical information that ends with data from 2015. Therefore, Mr. Neale criticizes activities that occurred while the Company was under different management, and while it was using a different set of metrics for selecting construction areas than those used in the current

Neighborhood Approach. In short, Mr. Neale's analysis, in Staff's view, is an apples-to-oranges comparison, which should be rejected.

4. City's Position

The City asserts that its focus is on safety and reliability as program objectives, and on metrics and reporting that match the pace and design of the program. The City does not take a position on Peoples Gas' proposal, or alternatives proposed by other parties. CDOT can accommodate the planning framework ordered by the Commission, provided it is accompanied by efficient performance and appropriate metrics and reporting. City-CUB Ex. 1.0 at 51.

5. Commission Analysis and Conclusion

The AG opposes the three year rolling plan as proposed by Peoples Gas and claims that it does not focus on the worst performing segments of the Company's system. The AG recommends that the Commission reject Peoples Gas' SMP and require the Company to reconfigure the program. Under the AG's proposal, the Company would put more focus on the worst performing segments first, with the goal of achieving greater levels of system risk reduction. The AG also proposes scaling back the SMP expenditures to spending anywhere from \$130-157 million on an annual basis through year 2029, depending on which alternative proposal would be used. Under the AG's plan, the Company would delay the completion of the project to between 2050-2065.

The Commission has some concerns with the AG's proposal. First there are limited details in the AG's proposal as to how to reconfigure the program and how long such a reconfiguration would take. The Commission notes that, under PHMSA's "Call to Action", Peoples Gas is required to act sooner rather than later on replacement of the worst performing segments of its system. There also was no recommendation as to how the Company will move forward while the program is being redeveloped. While the City has indicated that it can accommodate either a short- or long-term approach to the restoration project, it seems that there would not be a cost savings in tearing up the system in small segments on multiple occasions. Finally, there would be no Commission oversight or approval of this proposed alternative plan, which the Commission finds unacceptable.

The Commission notes that the neighborhood ranking program as proposed by Peoples Gas targets the worst performing segments of the Company's system. Any segment that ranks six or higher on the UMRI is targeted to be replaced first, outside of the Neighborhood Replacement Program. The Commission finds that this ranking system, coupled with separate efforts to immediately address critical leaks, meets the goal of addressing the riskiest elements of the system first and increasing overall system safety. The Commission also notes, as discussed in greater detail in Section V. A., that it does not have the authority to limit the expenditures of the Company pursuant to Rider QIP. Therefore, the Commission rejects the AG's proposed long term plan.

C. Phase II – Contractors and Labor

1. What are appropriate cost controls for outside contractors?

a. Peoples Gas' Position

Peoples Gas' new management has restructured contracts with contractors and engineering service firms. PGL Ex. 5.2 at 29-31. Contractors' agreements align contractor incentives with program goals to reduce cost and to retain highly performing contractors. *Id.* An expanded number of engineering firms was selected based on qualifications to perform the various engineering activities associated with the SMP, and agreement terms were extended. *Id.* The Company has established a Contract Services ("CS") organization with contract specialists who initiate formal and structured requests for proposals and perform bid reviews and award bids in cooperation with the Project Management and Controls ("PM&C"), Engineering, and Construction departments. *Id.* Under its revised procedures, Peoples Gas selects contractors by first sorting projects by location and types of work. *Id.* Bid packages, which may contain more than one project, are generally let weekly. *Id.* Contractors' bids are evaluated based on cost, the contractors' understanding of the work to be completed and their ability to staff and execute the work. *Id.* Peoples Gas also takes other factors into account, such as the Company's past experience with potential contractors on critical issues such as safety, quality, schedule adherence and cooperation; the individual project's potential for additional scope and the contractors' willingness to negotiate costs for unexpected work; and any project-specific requirements that may make one contractor more suitable than others due to its ability to competently and efficiently handle unforeseen issues. *Id.* For larger projects Peoples Gas may issue a Request for Information to one or more contractors to learn about their experience and capabilities with respect to the particular sort of project, staffing, supervision and other issues. *Id.*

Construction work is bid on a unit price basis or time and material basis, depending on the scope of work. *Id.* Services are bid on a unit price basis or time and expense basis. *Id.* While Peoples Gas at times uses fixed price compensation, it does so only on a very limited basis when scope and schedule are well-defined before work proceeds. *Id.*

Peoples Gas' new management also introduced a "Contractor Scorecard" program in 2016, principally on neighborhood projects, which measures construction contractors' performance in the areas of safety, quality, customer service and supplier diversity. *Id.* As of 2017, the Contractor Scorecard program covers most new neighborhood projects and select Public Improvement/System Improvement projects. *Id.* Contractors may be entitled to receive additional compensation for excellent performance on these metrics, and their compensation may be reduced for poor performance. *Id.* Typically, approximately 1-3% of the contractor's fee or margin is at risk for contractors. *Id.* In conjunction with the Contractor Scorecard program, Peoples Gas' Director of Contracting and Director of Construction meet directly with the senior management of contractor firms to discuss safety, quality and customer service successes and failures. *Id.*

Another important improvement to contractor oversight processes has been reworking the change order process. *Id.* Historically, "Field Orders" were used to allow approval of quick, low cost changes, but Peoples Gas determined that a greater level of

systematic oversight would be beneficial. *Id.* Now, change order requests that meet specified criteria are conveyed to a Peoples Gas CS or PM&C team member by either a Peoples Gas field employee or contractor. CS and PM&C review the request to understand its scope and validate the change and then determine the most applicable compensation strategy. The CS team member and the Project Manager also evaluate whether the additional work can be accomplished within the project schedule and budget. *Id.*

Finally, Peoples Gas has drafted and implemented several new procedures through its CS team. *Id.* These procedures address all areas of commercial management, including issuance of Requests for Information/Proposals, contracting roles and responsibilities, scorecard close-out procedures and so forth. *Id.* A current listing of the policies in the CS department is Appendix I to the SMP Plan Supporting Materials.

Peoples Gas explains that, since WEC's acquisition of Peoples Gas, and the contracting changes that new management has implemented, Peoples Gas is already noticing positive trends in contracting costs, and believes that this will lead to increased SMP efficiencies. PGL Ex. 11.0 at 14-15. For example, Peoples Gas took a random sample of projects initiated in 2015, 2016 and 2017, and found a greater than 15% decline in the contractor cost to perform work in 2016 in the neighborhoods where Peoples Gas is upgrading from at-risk low pressure to medium pressure with modern plastic materials. *Id.*

The AG seeks to undercut Peoples Gas' demonstration that it achieved a 15% decline in contractor costs. The AG's argument rests on destroying the random sampling that underpinned Peoples Gas' analysis. By cherry-picking the work in just one neighborhood, the AG was able to demonstrate that costs rose modestly (6.4%) in that neighborhood from 2015 to 2016. However, the bigger picture -- which was based on a random sampling of similar work in terms of the size and location of main within the right-of-way, the installation method, the scope of work, bidding strategy and other factors, without regard for neighborhood boundaries -- tells a different story, which is that the weighted average cost of work per mile fell from \$902,817 per mile in 2015 to \$750,135 per mile in 2016. *Id.* at 15. That downward trend continues in 2017, with a weighted average cost per mile of \$682,142. *Id.* at 15. The AG's arguments to the contrary should be rejected.

b. Staff's Position

The Company testified that the utilization of a competitive bidding process that involves multiple capable contractors vying for contracts is the first step in managing contractor costs. PGL 5.0 at 25. Mr. Hesselbach noted that Peoples Gas uses unit pricing to remove some risk from contractor pricing. Further, Mr. Hesselbach indicates that strategies of competitive bidding and unit pricing will be established Company-wide to ensure consistent applications of these strategies. *Id.* He also explained that Peoples Gas introduced a "Contractor Scorecard" Program in 2016, which compensates excellent performance and reduces compensation for poor performance in the areas of safety, quality, and customer service and supplier diversity. *Id.* at 27. Staff had no reason to disagree with the Company on this issue. Staff Ex. 5.0REV at 4.

As discussed in more detail below, Staff recommends the Commission approve the hiring of a consultant to aid Staff in reviewing Company expenses for the purposes of QIP reconciliations; one duty of the consultant would be review of Peoples Gas' hiring of outside contractors. Staff Ex. 4.0 at 25.

2. Would the program benefit from an increase in the number of internal personnel?

a. Peoples Gas' Position

While Peoples Gas will continually balance inside employees and outside contractors to maximize program efficiencies, no fixed ratio of in-house versus contractor labor will be appropriate for the SMP in all circumstances and at all times. PGL Ex. 5.0 at 28-30. However, since the middle of 2015, Peoples Gas has added substantial in-house resources displacing many management, technical and support positions that previously were provided through contractors. *Id.* The overriding considerations in this area are, and will continue to be, cost efficiency and quality. *Id.* If in-house personnel can do the work at a competitive cost and to a high standard of quality, Peoples Gas will seek to use in-house personnel. *Id.*

During the construction season, Peoples Gas and its contractors employ over a thousand people on SMP projects. PGL Ex. 11.0 at 19. The total number of jobs is even higher when one considers the additional jobs the SMP creates in Chicago and surrounding areas. *Id.*

Currently, Peoples Gas employees perform vital work in and around customer homes and businesses installing new meters, installing new interior piping as needed and performing interior restoration. PGL Ex. 5.0 at 28-30. In addition to these customer-facing activities, Peoples Gas' employees perform a broad range of duties to make sure field crews have the materials and equipment they need to be productive. *Id.* These types of work are a natural fit for Peoples Gas personnel to perform because they can take place throughout the year with relatively little concern for the implications of seasonal swings in resource demands. *Id.*

Peoples Gas will likely continue to rely on contractor labor for seasonal construction. Currently, contractors' work includes installing mains and services as well as specialty work associated with high pressure systems. *Id.* Since these projects can be completed only during Chicago's construction season, Peoples Gas will likely continue to use contractors, giving the Company flexibility to increase and decrease its workforce as work flow demands. *Id.*

Utility workers are retiring at an unprecedented rate. *Id.* To address this issue, Peoples Gas has developed a collaborative Gas Sector Utility Workers Training Program. *Id.* This is a union training-to-placement program that began in April 2012 and is designed to give military veterans the opportunity to acquire skills needed to work in Illinois' natural gas industry. *Id.* The program was developed through collaboration with the City Colleges of Chicago, Local 18007 and the UWUA Power for America Training Trust Fund. *Id.* To date, this program has placed 249 new gas workers in Peoples Gas' workforce. *Id.*

Peoples Gas also constructed a new \$20 million state-of-the-art training center that will provide best practice training for current and future employees. *Id.* At this facility, Peoples Gas will conduct incumbent field employee operator qualification training, new hire training and other company training. *Id.* Also at the new facility, Peoples Gas will be pursuing a program that will prepare Chicago high school students for utility careers through collaboration with Chicago Public Schools on a joint vocational training program. *Id.*

b. Staff's Position

Staff's position on this issue remains unchanged from Phase I. Staff submits that Peoples Gas is responsible for determining the composition of its work force. Staff Ex. 3.0 at 10-11.

3. Commission Analysis and Conclusion

Peoples Gas has revised and restructured its contracts with its outside contractors by utilizing a competitive bidding process and unit pricing in an effort to manage contractors' costs. Peoples Gas also is establishing the use of unit pricing Company-wide in an effort to remove some risk from contractor pricing. Peoples Gas introduced a "Contractor Scorecard" Program in 2016, which compensates excellent performance and reduces compensation for poor performance in the areas of safety, quality, and customer service and supplier diversity. The Commission finds that the Company has made the efforts to address contractors' costs and are noticing positive trends in reducing those costs. The costs will also be reviewed in the annual QIP reconciliation. The Commission further finds that the Company is in the best position to determine whether or not to rely on outside contractors for SMP.

IV. IMPLEMENTATION PLANNING

A. Peoples Gas' Neighborhood Approach to Planning

1. Peoples Gas' Position

Peoples Gas proposes a "neighborhood approach" to prioritizing mains for replacement which has multiple benefits. PGL Ex.4.0 at 3. First, the neighborhood approach allows the Company to address the riskiest portions of its system before moving onto less risky areas. *Id.* Second, the neighborhood approach is more efficient and cost-effective than the "scattershot" approach advocated by the AG, under which only the most vulnerable pipes in the City are addressed irrespective of their location. *Id.* The smaller-scale projects under a scattershot approach have "a larger cost to install per unit of pipe installed; this is primarily due to the costs of the start and stop of the project as well as less cost effectiveness due to scale of work being done." PGL Ex. 4.0 at 3. Third, the neighborhood approach supports installation of medium pressure pipes and facilities in a comprehensive manner, which is impossible under a program that simply responds to just the most vulnerable individual pipe segments anywhere in the City. *Id.* Fourth, the neighborhood approach minimizes disruption for Chicago residents by ensuring that their streets are not being disturbed multiple times as small segments of pipe are fixed over many years. *Id.* at 4.

Peoples Gas states that, with the exception of the AG, all parties either support Peoples Gas' neighborhood approach or take no position on it. PGL Ex.4.0 at 5. The AG argues that the neighborhood approach: (1) has not reduced leaks on the Peoples Gas system; and (2) does not properly prioritize the replacement of the most at-risk pipe. AG Ex. 1.0R at 17.

As to the AG's initial argument, Peoples Gas explains that the AG's leak rate analyses are flawed because they include leaks caused by third parties, and they do not take into consideration the effect of Chicago's harsh winters on gas mains. PGL Ex. 4 at 5. Further, Peoples Gas argues that when leak rates are adjusted to account for weather conditions and leaks caused by third parties, the data shows that hazardous leak rates on the Peoples Gas system have fallen by 20% since 2010. *Id.*

As to the AG's second argument, Peoples Gas explains that the neighborhood approach considers five factors to rank the relative risk of mains in neighborhoods: (1) the percentage of medium pressure CI/DI pipe; (2) the percentage of small diameter CI main; (3) the mean UMRI of the pipe in the neighborhood; (4) the percentage of service pipes made of vulnerable materials; and (5) the total pending Class 2 and Class 3 leaks per mile. *Id.* The AG argues that some of these factors do not appropriately target safety. However, Peoples Gas claims that admissions made by the AG's witnesses undermine that argument. For example, the AG maintains that factor number one, the percentage of medium pressure cast and ductile iron pipe, should not be factored into the Company's neighborhood risk rankings. However, AG witness Neale admitted that "high pressure does drive gas toward structures quicker than low pressure." Tr. at 371. Therefore, Peoples Gas contends that the record in this case reflects that the percentage of medium pressure CI/DI pipe is a proper factor to consider in the Company's risk-ranking methodology.

Additionally, Peoples Gas objects to the request of the AG seeking a Commission order requiring Peoples Gas to issue a Request for Proposals ("RFP") for new Distribution Integrity Management Project ("DIMP") software within 90 days. AG Ex. 1.0R at 36-38. Peoples Gas has been meeting with several vendors and is in the process of reviewing DIMP software packages. The Company plans to utilize such software in the future, and on that basis Peoples Gas argues that no mandated or accelerated timeline for issuing a RFP is necessary. AG Ex. 1.3.

2. Staff's Position

Staff does not oppose the Company's neighborhood approach to planning, which was recently evaluated by Liberty and was updated by the Company based upon Liberty's recommendations. Staff observes that Liberty conducted a management audit of the Company's AMRP and a final report on phase one was issued on May 5, 2015. Staff Ex. 1.0 at 7. Staff noted that Liberty did not oppose the neighborhood approach but rather appears to consider the neighborhood approach to be a reasonable approach for replacement activities. While noting that the AG called into question Staff's evaluation of the neighborhood approach, Staff argues the AG fails to consider that Staff has been involved in reviewing accelerated main replacement issues at least since the onset of the Liberty investigation; indeed, the Liberty audit itself was based on a Staff recommendation.

Staff notes the Company's program uses the UMRI to identify pipe segments that are most at risk for failure and in need of replacement. The AG fails to recognize that Peoples Gas will promptly replace any main segment that scores a six or higher on the UMRI. AG Cross Ex. 14 at 2. As a result, the Company replaces the worst performing segments in addition to the replacement work performed through the neighborhood approach.

Additionally, within the neighborhoods, Staff notes that the Company will either put in a new single main or put in two mains, one on each side of the street (a process known as "double-decking"). The determination as to which approach is appropriate will take into account cost, efficiency, future customer maintenance, customer convenience, and coordination with the City of Chicago. Staff does not take issue with the Company's approach to locating mains, but notes that the prudence determination for the Company's decision regarding whether or not to do double-decking with a particular main would take place in future rate cases or QIP reconciliation proceedings. Staff Ex. 1.0 at 8.

3. AG's Position

The AG opposes Peoples Gas' neighborhood approach. The AG argues that the Company's claim that the neighborhood approach "...allows the Company to address the riskiest portions of its system before moving on to less risky areas" is not supported by the evidence. PGL Ex. 4.0 at 2. The AG asserts that the neighborhood approach does not focus on the most vulnerable leaky and risky mains. The evidence shows that the number of leaks on Peoples Gas' system has increased over the past six years, which is a worrisome indicator that the current strategy for capital replacement is not effective. Moreover, the Peoples Gas-Proposed SMP will not necessarily change this disconcerting trend because it focuses on upgrading neighborhoods to a higher pressure system and not on removing the riskiest pipe segments first.

The AG asserts that contrary to Peoples Gas' claim, the neighborhood ranking system does not "address the riskiest portions of its system." Peoples Gas' neighborhood ranking system uses the UMRI and other factors to determine the order of Chicago neighborhoods in which the utility will replace vulnerable pipe. Peoples Gas witness Hesselbach explained that the UMRI is a tool Peoples Gas uses to maintain historical information on individual pipe segments and develops an index factor for each pipe segment. The index factors are used to identify the pipe segments most prone to failure "and most in need of replacement." PGL Ex. 1.0R at 21-22. The AG claims that it is clear that the Company's main ranking index -- a formula based on performance data to identify risky mains -- is not the sole or even predominant driver of ranking a neighborhood.

Further, the AG states that Peoples Gas claims that its neighborhood approach is preferable because it "minimizes disruption for Chicago residents by ensuring that their streets are not being disturbed multiple times as small segments of pipe are fixed over many years." PGL Ex. 4.0 at 5. The AG argues that the City refutes that purported advantage by claiming that CDOT can accommodate the various proposed processes in its coordination of Public Way activities with Peoples Gas, provided that the Commission establishes performance metrics and reporting requirements that match the program design.

The AG adds that the Company's modernization plan includes other program initiatives besides the area-wide approach to pipe replacements under the neighborhood approach. These programs, however, should not be mistaken for capital programs prioritizing the removal of the riskiest distribution segments on Peoples Gas' system.

The AG claims that the public improvements are "similar" to the Neighborhood Replacement Program projects, and so they would be subject to the same shortcomings as the neighborhood plan in terms of not focusing on worse performing pipe segments. In addition, this program appears to be designed to respond to third-party requests to relocate facilities, so almost certainly those projects would not be tailored to focus on the worst performing pipe segments.

According to the AG, the other program components are intended to address capacity and reliability problems which focus on deliverability concerns across the distribution system, and not the removal of the riskiest pipe segments. These groups of projects are targeted to build the deliverability backbone of the distribution system to neighborhoods converted to medium pressure systems under the neighborhood approach. Because the neighborhood replacement approach dilutes the performance based replacement criteria, it would be happenstance if the high pressure installations involved the targeting of poorly performing, high pressure pipe for replacement.

The third part of the modernization program is targeting transmission pipe rather than distribution mains, so it does not appear to be designed to improve safety on the distribution level of the system. The AG asserts that while targeting the most risky transmission lines should improve public safety, the Company has not detailed in either its initial or rebuttal testimony how the actual risk ranking of the transmission pipe was performed.

The AG argues that Peoples Gas asserted that the neighborhood approach is preferable because it is more cost-effective than the AG's recommended plan that Peoples Gas prioritize replacing the leakiest and most risky pipe no matter the location. Mr. Neale testified that while the neighborhood approach may have short-term efficiencies, system safety should be the paramount objective of the main replacement program. AG Ex. 1.0R at 32.

The AG notes that Mr. Neale also testified that Peoples Gas provided no evidence regarding the cost savings associated with the neighborhood approach, which is especially important when it comes to customer affordability issues. Peoples Gas proposes to spend extraordinary sums of money to convert neighborhoods to medium pressure which may have little or no impact on reducing the riskiest mains. *Id.* at 33.

Mr. Neale further testified that the DIMP does not require that vulnerable pipe be replaced using a neighborhood approach. Rather, the DIMP focuses on reducing risks across a utility's distribution system. The AG asserts that Peoples Gas should not substitute its more efficient construction approach for the DIMP's goal of reducing risk on the system. *Id.*

Regarding Staff, the AG contends that it failed to effectively evaluate whether Peoples Gas' proposed SMP plan and neighborhood approach effectively identifies the most at-risk CI/DI main and other vulnerable infrastructure. Staff witness Lounsberry

admitted he conducted what can only be described as a casual examination and understanding of Peoples Gas' DIMP. When asked whether PHMSA requires gas distribution companies to develop and demonstrate an understanding of the Company's distribution system, Mr. Lounsberry testified that he would "have to go back and look at what the PHMSA requirements say exactly." Tr. at 273. The AG notes that despite acknowledging that the existence of a DIMP is a critical component in a company's ability to identify where vulnerable mains and other infrastructure exist, it remains unclear as to how, if at all, Mr. Lounsberry compared Peoples Gas' DIMP with its proposed three-year plan to determine whether the Company adequately addressed the identification of the most vulnerable CI/DI main. Tr. at 271-76.

According to the AG, Staff's analysis was also deficient because Staff conducted no analysis of the connection, if any, between municipally identified boundaries and the identification of the most at-risk CI/DI main. Tr. at 297-98, 350. Likewise, Staff performed no independent analysis as to whether the Company's decision to apply a 30% weighting to the Mean MRI factor in its neighborhood ranking index ensures that the most at-risk CI/DI main have been identified. Tr. at 291, 293-94. Instead, Mr. Lounsberry referenced Peoples Gas' completion of a reconfiguration of the factor weightings applied in its neighborhood approach as a follow-up to Liberty auditor recommendations as the basis for his support for the neighborhood approach. Staff Ex. 1.0 at 7. However, on cross-examination it was revealed that not only did Mr. Lounsberry not evaluate the effectiveness of the 30% weighting of the Mean MRI factor; he also acknowledged that he was unsure if the Liberty auditors themselves conducted an independent analysis of the reasonableness of that weighting. Tr. at 295.

The AG points out that while Mr. Lounsberry cited Liberty's May 2, 2016 Third Quarterly Report in his testimony, he admitted that there is nothing in the Liberty report that evaluates or approves the Company's proposed three-year plan. *Id.* at 296. The AG contends that no such analysis was completed by the Liberty auditors. AG Cross Ex. 15.

As well, the AG urges the Commission to adopt Mr. Neale's proposal that Peoples Gas be ordered to invest in software that is readily available and that will aid the utility in ranking and prioritizing the replacement of its riskiest pipe segments. As the Company replaces its riskiest leak-prone assets, its leak rates should improve. Mr. Neale noted that Peoples Gas stated in a discovery response that it has met with several main ranking software vendors and plans to utilize the software in the future. Given the usefulness of, and need for, such software, the AG proposes that the Commission require that Peoples Gas issue a RFP within 90 days of its order in this case. The AG also recommends that the Commission monitor the RFP process to ensure that it is robust and fair and require that Peoples Gas implement the software within 180 days after it selects a vendor. AG Ex. 1.0R at 36-38.

In conclusion, the AG argues that Peoples Gas did not show it has a robust plan for risk ranking and prioritizing for replacement of the worst-performing distribution pipe segments on its system through its neighborhood ranking system or in any of the other components of the Peoples Gas-Proposed SMP. As to Staff, the AG argues that its analysis and approval of Peoples Gas' proposal is incomplete. The AG urges the

Commission to give Staff's analysis little weight as it makes conclusions on what the Peoples Gas SMP should look like going forward.

4. CUB's Position

CUB does not object to the neighborhood approach to planning. CUB notes however, that the neighborhood approach is not limited just to replacing hazardous pipes. It encompasses increasing system pressure from low to medium, and the relocation of meters from inside to outside customers' residences. CUB asserts that its proposal to require Peoples Gas to use advanced leak detection and leak quantification technologies to prioritize pipe replacement can be integrated into the neighborhood approach, to supplement the data on which Peoples Gas relies in developing prioritizations within the existing program.

5. Phase II

a. Should PGL use a neighborhood approach or another method to prioritize replacement?

(i) Peoples Gas' Position

Peoples Gas explains that it is pursuing a neighborhood approach to main replacement, which means that each of the 228 individual Chicago neighborhoods are ranked for risk and then sequenced for work based on each neighborhood's risk ranking. PGL Ex. 5.2 at 10.

Peoples Gas explains that the neighborhood approach has a number of benefits. First, the neighborhood approach allows the Company to address the riskiest portions of its system before moving on to less risky areas. PGL Ex. 5.0 at 11-13. The approach therefore directly addresses the primary goal of the SMP to provide a safer and more reliable system. *Id.*

Second, the neighborhood approach is substantially more efficient and cost-effective than an alternative approach under which only the most vulnerable pipes in the City would be addressed irrespective of their location. *Id.* Under such a piecemeal approach, projects would have a smaller scale and therefore a larger cost to install. *Id.* This is primarily because smaller projects allow fewer economies of scale because crews must mobilize and demobilize from locations scattered around the City. *Id.* This is borne out by comparing the cost in 2016 of Neighborhood work (\$1.31 million per mile) to Public Improvement/System Improvement work (\$2.05 million per mile). PGL Ex. 8.0 REV at 7-8. This cost differential would be expected to continue under a "worst performing segments" approach as advocated by the AG, and yet the AG has not reflected this reality in its economic modeling. *Id.* As Liberty recognized in its Phase 1 Final Report, "The neighborhood approaches' (sic) combination of main replacements with other work (increasing pressures from low to medium levels and the relocation of meters from inside to outside customer structures) will produce future operations and customer benefits." *Id.*, citing Liberty, Phase One of an Investigation of Peoples Gas Light and Coke Company's AMRP, Final Report on May 5, 2015, at F-2.

Third, the neighborhood approach supports installation of medium pressure pipes and facilities in a comprehensive manner, which would be impossible under a program that responded to the most vulnerable individual pipe segments regardless of their location in the City. PGL Ex. 5.0 at 11-13. It is technically unfeasible to install a patchwork of low and medium pressure pipes; if this work is not completed in larger geographic areas all at one time, it cannot be done at all. *Id.*

Fourth, the neighborhood approach minimizes disruption for Chicago residents by ensuring that their streets are not being disturbed multiple times as small segments of pipe are replaced over many years. *Id.* Additionally, the more comprehensive neighborhood approach creates better opportunities to collaborate with the City and local elected officials where all parties have restoration and paving activities taking place each year. *Id.*

Fifth, pursuing a neighborhood program provides for a systematic and methodical approach to construction, which allows for state-of-the-art engineering design and standards to be used. *Id.* This allows for comprehensive replacement with medium pressure mains and installation of the upstream infrastructure necessary to support higher pressures. *Id.*

(ii) Staff's Position

Mr. Hesselbach identified five advantages of the neighborhood approach versus alternative approaches. PGL Ex. 5.0 at 11-15. Consistent with Staff's position in Phase I of this proceeding, Staff found no reason to take issue with the reasons articulated by Mr. Hesselbach or with the neighborhood approach. Staff Ex. 4.0 at 4.

(iii) AG's Position

The AG asserts that AG witness Allen R. Neale testified that PGL's risk ranking methodology is insufficiently robust to achieve public safety goals while also minimizing customer rate impacts. AG Ex. 5.0 at 2. In support of this point, Mr. Neale described certain recommendations made by the Liberty auditors regarding the Company's risk-ranking approach. After describing Liberty's concerns, Mr. Neale noted that although Liberty has accepted the utility's neighborhood approach as a proper risk-ranking tool for the moment, Liberty stated that "[m]anagement needs to continue to evaluate the current neighborhood model on a yearly basis and determine if there needs to be change in either risk metrics being measured or the model itself, to reduce risk as fast as possible." *Id.* at 3, *quoting* Liberty's Fifth Quarterly Phase Two Report at 12.

The AG states that Mr. Neale also cited Liberty's statement in its Fifth Quarterly Phase Two Report that "Peoples Gas should be replacing the highest risk mains and services." *Id.* at 4, *quoting* Liberty Fifth Quarterly Phase Two Report at 12. Mr. Neale explained that Liberty's statements are consistent with his testimony in the first phase of this case that Peoples Gas should focus on replacing the riskiest pipe on its system without expending resources on less risky pipes. *Id.* at 4.

The AG observes that Mr. Neale further testified that the metrics and weighting factors Peoples Gas uses in ranking neighborhoods is not clear because it determines the weighting factors using "professional judgment", which is necessarily subjective.

Moreover, as he testified in the first phase of the case, the weighting factors used by PGL do not measure true risk, are not performance-related, and are therefore insufficient for prioritizing pipe for replacement. *Id.* at 5. In his rebuttal testimony on re-opening, Mr. Neale added that the neighborhood approach may cause “many pipe segments [being] swept into the queue for immediate replacement unnecessarily while at the same time potentially ignoring equally or even more risky pipe segments in areas not captured by the non-performance criteria.” AG Ex. 6.0 at 1-2.

The AG alleges that Peoples Gas asserted that its neighborhood approach permits it “to address the riskiest portions of its system before moving on to less risky areas.” The AG argues that Peoples Gas’s claim is incorrect. By replacing main at the neighborhood level, it is inevitable that PGL is replacing main that is less risky than riskier main. Focusing on neighborhoods requires that the Company replace all main in the neighborhoods in which it is working, from the most to the least risky. Doing so means that replacement of main riskier than at least some of the pipe in neighborhoods in which PGL has not done work is being delayed. Thus, common sense dictates that the neighborhood approach does not remove the riskiest pipe first.

Moreover, according to the AG, Mr. Neale testified that PGL’s neighborhood risk ranking methodology is insufficiently robust to achieve public safety goals while also minimizing customer rate impacts. AG Ex. 5.0 at 2. Peoples Gas uses five factors in ranking neighborhoods:

- (1) the percentage of medium pressure cast and ductile iron pipe;
- (2) the percentage of small diameter cast iron main;
- (3) the mean UMRI of the pipe in the neighborhood;
- (4) the percentage of service pipes made of vulnerable materials; and
- (5) the total pending Class 2 and Class 3 leaks per mile. PGL Ex. 10.0 at 8-9.

Mr. Neale observed that only two of the five factors in the neighborhood ranking system – the UMRI score and pending leaks per mile – involve true measures of risk. The other three factors are not performance-based metrics. Instead, the three factors relate to system configuration measures (pipe pressure, pipe diameter, and service type). In Peoples Gas’ ranking system, the performance-based criteria account (pending leaks and mean MRI) at a total of 40%, are weighted less than the system configuration measures at 60% of the total possible score. PGL Ex. 10.0 at 8:156-9:169.

The AG explains that the utility’s approach means that 60% of its ranking approach measures factors that have nothing to do with the performance of pipe in the field. As a result, pipe that is not leaking may receive a higher risk score, resulting in a less accurate risk ranking procedure. Mr. Neale noted that:

a neighborhood, with the higher overall risk ranking, could be slated for pipe replacement ahead of a second neighborhood, even if the latter would have had a higher ranking based solely on performance criteria. In other words, the values for performance criteria have been diluted by those for non-performance criteria. The resulting

neighborhood risk factor is less efficient because the risk ranking that would result from relying on performance criteria can be offset by reliance on non-performance factors that also potentially double-count the risk factor for certain pipe segments. AG Ex. 6.0 at 4:92-98.

The AG adds that Mr. Neale stated that factor (4), the percentage of service pipes made of vulnerable materials, has nothing to do with actual performance. Mere membership in a class defined as being vulnerable does not mean particular pipe segments are leaking. Accordingly, neighborhoods with high percentages of services made from vulnerable materials may be graded as riskier than those with lower percentages even if there is no indication the services are leaking. *Id.* at 4.

The AG notes that PGL's risk ranking, which can lead the utility to prioritize the replacement of main for specific neighborhoods ahead of actual need, may not necessarily be cost-effective. Mr. Neale recommended that the Commission adopt his proposal that replacing main based on actual pipe performance, regardless of where the pipe is located, is the most cost-effective manner to replace the worst-performing pipe and to reduce overall risk on the system.

b. How are neighborhoods targeted for replacement under the Neighborhood approach and how are various factors balanced?

(i) Peoples Gas' Position

Peoples Gas explains that it has developed a neighborhood risk-ranking methodology that assigns a score to each of Chicago's 228 individual neighborhoods. PGL Ex. 10.0 at 7-8. Generally speaking, the neighborhood with the highest score will be addressed first. The risk-ranking methodology considers the following five weighted factors: (1) the percentage of medium pressure cast and ductile iron pipe; (2) the percentage of small diameter cast iron main; (3) the mean UMRI of the pipe in the neighborhood; (4) the percentage of service pipes made of vulnerable materials; and (5) the total pending Class 2 and Class 3 leaks per mile. *Id.*

The first factor, the percentage of medium pressure cast iron and ductile iron pipe, is calculated by dividing the number of feet of cast and ductile iron mains operating at medium pressure in a neighborhood by the total number of feet of low and medium pressure cast and ductile iron mains in that neighborhood. PGL Ex. 5.2 at 24-29. This factor is important because medium pressure mains have greater consequences in the event of failure than do low pressure mains. *Id.* Similarly, cast and ductile iron mains are more likely to fail than other materials. *Id.*

The second factor, the percentage of small diameter cast iron pipes in a neighborhood, is important because small diameter pipes are more brittle than large diameter pipes. *Id.* This percentage is calculated by dividing the total feet of main that is eight inches or smaller in the neighborhood by the total feet of medium and low pressure cast and ductile iron main in the neighborhood. *Id.*

The third factor, mean UMRI, is the statistical mean of the condition of all the segments of low pressure gas main and medium pressure cast and ductile iron gas mains

within a neighborhood. *Id.* This metric allows Peoples Gas to compare the relative condition of each segment of gas main in its system. *Id.* The UMRI is a methodology that maintains historical information on individual pipe segments and creates an “index factor” for each segment based on past performance indicators on the pipe. *Id.* Individual segments, which can range from one foot to one mile in length, are identified based on the year they were installed, their pressure, diameter, material and location. *Id.*

The fourth factor examines the number of services (*i.e.*, pipes connecting the mains to houses and businesses) that are constructed of vulnerable materials, which are cast iron, ductile iron, copper, clear plastic and bare steel. *Id.* The number of vulnerable services is divided by the total number of services in the neighborhood. *Id.*

The fifth factor weighs the total number of Class 2 and Class 3 leaks per mile by dividing the number of such leaks in a neighborhood by the number of miles of main in that neighborhood. *Id.*

Peoples Gas states that the neighborhood rankings are developed each year by January 30. This neighborhood ranking is then used to develop priorities for work for each year, subject to the adjustments discussed below. *Id.* Peoples Gas submitted the current neighborhood ranking list as Appendix G to PGL Ex. 5.2.

Factors other than the neighborhood rankings may influence the order in which neighborhood work is completed. *Id.* These factors include gas flow analysis, coordination with infrastructure projects being undertaken by the City of Chicago and other entities, potential conflicts with other projects in City streets and the timeliness of permits and other authorizations. *Id.* Additionally, other engineering feasibility considerations may impact final sequencing for neighborhood upgrades. *Id.* In cases where significant engineering and design tasks have already been completed for a certain location, work at that location may be continued to utilize efficiencies gained from that work, even if the neighborhood in question might have dropped in the ranking as a result of an annual re-rank. *Id.* As a result of these additional factors, work may deviate from the strict neighborhood rankings. *Id.* This approach allows Peoples Gas to address the riskiest pipe in the system while at the same time taking advantage of efficiencies that will reduce cost and limit disruption to Chicago residents. *Id.*

Peoples Gas explains that the AG is alone in its criticism of Peoples Gas’ neighborhood approach and its risk-ranking methodology. Staff states that it does not oppose the neighborhood approach and notes that it was recently evaluated and approved by Liberty. CUB states that the pilot program jointly developed by Peoples Gas, CUB and EDF, under which Peoples Gas will use leak flow rate data as an additional factor to prioritize neighborhood work, and which is described in greater detail in Appendix B, will “dovetail” nicely with the neighborhood approach. The AG claims that AG witness Mr. Neale has demonstrated that the risk-ranking methodology does not measure “true risk” because its factors are not “performance-related.” The AG also argues that Mr. Neale has shown that the risk-ranking methodology is ineffective because its UMRI component is not granular enough and it “double-counts” the risk presented by certain pipe segments. The AG then quotes from Liberty’s discussion of the risk-ranking methodology, perhaps in an attempt to suggest that Liberty has not fully supported the methodology or to demonstrate that Peoples Gas must immediately revisit the

methodology's factors and their weightings, although the AG's point is unclear and its quote from Liberty's discussion is incomplete. *Id.* at 35.

As to the AG's argument that the risk-ranking methodology's factors are not performance-based, Peoples Gas has demonstrated that all five of the factors included in its neighborhood risk-ranking methodology are focused on reducing risk and promoting safety. First, AG witness Mr. Neale has conceded that factors 3 and 5 (*i.e.*, the mean UMRI of the pipe in the neighborhood and the total pending Class 2 and Class 3 leaks per mile) are risk-based. AG Ex. 3.0 at 5. Second, Peoples Gas witness Mr. Kinzle has explained that factors 1, 2 and 4 appropriately target safety as well. Factor 1, the percentage of medium pressure cast and ductile iron pipe, is important because medium pressure mains have greater consequence in the event of failure than do low pressure mains. PGL Ex. 10.0 at 8-9. Factor 2, the percentage of small diameter cast iron main, must be considered in the risk-ranking methodology because small diameter pipes are more brittle than large diameter pipes and, for that reason, are more susceptible to leaks, cracks and breaks. *Id.* Factor 4, the percentage of service pipes made of vulnerable materials, focuses on the density of services (*i.e.*, pipes connecting the mains to homes and businesses) that are constructed from materials that PHMSA has identified as "vulnerable" (*i.e.*, cast iron, ductile iron, copper, clear plastic and bare steel). These "vulnerable" services have a higher risk of leak or failure. *Id.*

Peoples Gas states that, as to the AG's assertion that the risk-ranking methodology is ineffective because the UMRI factor is not granular enough, the Company has explained that UMRI goes beyond whole numbers. PGL Ex. 10.0 at 10. The rankings include two figures following their decimal point. *Id.* So, for example, one segment could have a ranking of 2.58 and a second segment to which it is being compared could have a ranking of 2.71. This level of granularity allows for a detailed comparison of the risk basis posed by one small segment of pipe versus another. *Id.*

Peoples Gas explains that the AG, in support of its erroneous argument that the risk-ranking methodology double-counts risk, claims that the methodology's UMRI component already captures the risk that is measured under the factors that Mr. Neale has branded as non-performance factors (*i.e.*, (1) the percentage of medium pressure cast and ductile iron pipe; (2) the percentage of small diameter cast iron main; and (3) the percentage of service pipes made of vulnerable materials). However, the risk that is measured under these three factors is not duplicative of the risk that is measured through UMRI. PGL Ex. 14.0 at 4-6.

First, with respect to the percentage of medium pressure cast and ductile iron pipe, this factor weighs the elevated level of risk associated with moving gas through vulnerable material with extra force. PGL Ex. 14.0 at 5. By contrast, the UMRI ranking is used to target pipe segments that have a history of leaks, cracks, or breaks that have been repaired and which, based on this history, are more likely than other segments to fail. *Id.* Accordingly, the factor that measures the percentage of medium pressure cast and ductile iron pipe is focused on concerns over a certain *class* of pipe being prone to failure while the UMRI factor is a history of actual problems with *particular* segments of pipe. *Id.* Where both factors are present (*i.e.*, actual poor performance history for a class of pipe that is more prone to failure, generally), a higher total ranking is, in fact, warranted. *Id.*

Second, with respect to the percentage of small diameter cast iron main, engineering studies of the Peoples Gas system have shown that pipes with thinner walls pose safety risks. PGL Ex. 14.0 at 5-6. Of all the types of cast iron and ductile iron main in the system, this pipe is more likely to fail because of its thinner wall and the resulting impact that frost and other natural forces have on its integrity. *Id.* While there may be some overlap between the pipe that is included in this factor and the UMRI factor, small diameter cast iron main is a distinct class of pipe that should be separately accounted for in the risk-ranking methodology. Further, the reasoning for the factor described above applies equally here. *Id.* Specifically, because the UMRI factor assesses *actual* performance history while this factor focuses on a *class* of pipe being prone to failure, a higher total ranking is warranted when both factors are present. *Id.*

Third, with respect to the percentage of service pipes made of vulnerable materials, the inclusion of this factor is not duplicative of the UMRI because the UMRI evaluates mains -- not services. PGL Ex. 14.0 at 6.

The AG, perhaps in an attempt to suggest that Liberty has not fully accepted the risk-ranking methodology or to demonstrate that Peoples Gas must immediately revisit the methodology's factors and their weightings, selectively quotes from Liberty's discussion of the topic as follows:

Management needs to continue to evaluate the current neighborhood model on a yearly basis and determine if there needs to be change in either risk metrics being measured or the model itself, to reduce risk as fast as possible.

Liberty, Phase Two of an Investigation of Peoples Gas' AMRP, Fifth Quarterly Report, November 14, 2016, at 12. The AG ignores the adjacent portion of the report noting that Peoples Gas has been diligent in updating the risk-ranking methodology and Peoples Gas will need at least two years to assess the impact of those updates:

Liberty had previously suggested that the neighborhood risk model be modified, which management did, thus making changes in risk measureable as the new model takes effect. Changes in the model take several years to implement (due to the need to re-engineer the mains being replaced). The effects of a change in the model in one year will therefore not become apparent for at least two years.

Liberty Consulting Group, Phase Two of an Investigation of Peoples Gas' AMRP, Fifth Quarterly Report, November 14, 2016, at 12. Accordingly, any suggestion by the AG that Liberty has directed Peoples Gas to immediately revisit the risk-ranking methodology is misleading. If Peoples Gas were to take such immediate action it would have to do so without a full appreciation of the impact of its recent updates to the methodology, and this point is reflected in the Liberty report.

(ii) Staff's Position

In Phase I of this proceeding, the Company explained its neighborhood approach, as well as the UMRI that is used in the neighborhood approach. In Phase II, Mr.

Hesselbach provided a more detailed explanation of the UMRI. Staff found no reason to take issue with the Company's approach. Staff Ex. 4.0 at 5.

(iii) CUB's Position

CUB observes that the Neighborhood Program's approach to main replacement relies on a ranking of each of 228 Chicago neighborhoods by risk on an annual basis, each one of which is then sequenced for work based on that risk ranking. PGL Ex. 10.0 at 2. CUB notes that the risk ranking methodology used by PGL assigns a score to each neighborhood, with the highest scoring neighborhoods being addressed first, which "results in refreshed neighborhood rankings and re-prioritization of work based upon the most up-to-date information." *Id.* at 7. CUB avers that, as indicated in PGL-CUB Joint Cross Ex. 1, the Pilot will dovetail with PGL's existing Neighborhood Program by functioning as an additional factor used to prioritize neighborhoods. CUB notes that, under the provision of the agreed Pilot, PGL will use leak flow rate data as a secondary factor, after first considering neighborhood risk rank, to sub-prioritize among neighborhoods with comparable risk ranks.

CUB does not take issue with the PGL's neighborhood approach to pipe replacement in the first phase of this proceeding, but rather argued that the advanced leak detection and quantification technology should be integrated into PGL's prioritization of neighborhoods. Here, CUB likewise concludes that including advanced leak detection, quantification and analytics into the Neighborhood Program through implementation of the Pilot should result in more efficient pipe replacement, while reducing risk, improving efficiency and providing environmental benefits.

c. Are there components that can be sequenced differently or removed altogether?

(i) Peoples Gas' Position

Peoples Gas explains that the neighborhood approach is the most efficient, cost-effective and systematic approach to main replacement. PGL Ex. 5.2 at 17-18. The priority and sequencing of the work must be continually evaluated for a program of this magnitude in a dense, congested urban environment that has a large number of public and private construction projects starting each year. *Id.* As City and other stakeholder infrastructure plans are developed, Peoples Gas works collaboratively to complete system upgrades in the most efficient, cost-effective way. *Id.* In combination with the risk-ranking methodology, the neighborhood approach allows flexibility to adjust the sequence of work to maximize efficiencies. *Id.* By re-ranking neighborhoods and projects each year, Peoples Gas ensures that it continues to address the most critical areas of its system first, thereby reducing risk for the system as a whole. *Id.*

Public Improvement/System Improvement work is highly variable. *Id.* This category of work is necessary to coordinate and avoid conflicts with third parties that are working under the streets anyway or with customers that require upgrades to address capacity or reliability concerns. *Id.*

For these same reasons, it would not be prudent or safe to remove elements of the SMP altogether.

(ii) Staff's Position

Mr. Hesselbach indicated that the SMP is re-sequenced each year based on neighborhood rankings and other factors. He then noted that public improvement/system improvement work is highly flexible and allows the Company latitude to coordinate work under city streets with third parties, including the City of Chicago, that are conducting work in the city streets, or with customers that require upgrades to address capacity or reliability issues. PGL Ex. 5.0 at 19. Mr. Hesselbach observed that in 2016, the Neighborhood Program had main installation costs of \$1.31 million per mile, while the public improvement costs were \$2.03 million per mile. *Id.* at 12, fn. 4.

Staff promulgated data requests requesting Peoples Gas provide further explanation and analysis underlying its decision to continue to pursue public improvement/system improvement work, in light of Mr. Hesselbach's testimony that public improvement/system improvement work costs more per mile than work done under the Neighborhood Program. Staff Ex. 4.0 at 7. In its response to those data requests, the Company stated that public improvement/system improvement work is generally not discretionary work that Peoples Gas can defer until the Neighborhood Program reaches the area in question. Staff Exs. 4.2 and 4.3. Further, Peoples Gas contends it would be inefficient for Peoples Gas to perform only the minimum amount of work needed to address the public improvement/system improvement issues because, at some later date, the Company would need to do additional SMP work in the same location, resulting in a duplication of activities such as restoration work. Finally, the Company noted that public improvement work is generally required due to a third-party project that affects Peoples Gas' facilities. *Id.*

Staff requested that the Company provide additional information regarding: (1) how it determines what is non-discretionary improvement work; (2) how much discretionary improvement work was done in 2016; (3) how much is planned for 2017; (4) why the discretionary improvement work was conducted; and (5) why the Commission should view discretionary improvement work as a necessary component of SMP. Staff Ex. 4.0 at 8.

In rebuttal testimony, Mr. Hesselbach explained the Company does not classify improvement projects as discretionary or non-discretionary. The Company views PI/SI work as consistent with its obligation to provide reliable service to customers and therefore not discretionary. PGL Ex. 7.0 at 3. Mr. Hesselbach further explained that system improvement projects are designed to address recurrent maintenance or service interruption issues or to meet growing customer demand. If these types of pipe will need to be replaced as part of the SMP, it makes sense from customers' and City residents' perspectives to do the work in the near term rather than waiting until that particular neighborhood is slated for work under the neighborhood plan. *Id.* at 4. Mr. Hesselbach noted system improvement work is necessary to alleviate repeated service disruptions and reliability concerns experienced by customers or to meet growing customer needs, and completing these types of projects reduces the overall risk profile of the system, making improvement work fully consistent with the core purpose of the SMP. *Id.* at 5. Finally, Mr. Hesselbach testified that improvement work would need to be completed at some point; it is being completed within the three-year plan in response to factors beyond

Peoples Gas' risk-ranking methodology and ultimately reduces the quantities of work that will need to be completed in future years. Staff has no reason to take issue with Mr. Hesselbach's assertions.

6. Commission Analysis and Conclusions

Peoples Gas recommends the neighborhood approach to address the replacement of at-risk mains, conversion to medium pressure, and meter replacement based upon which neighborhood ranks highest. The Company's current risk-ranking methodology considers the following five factors: (1) the percentage of medium pressure CI/DI pipe; (2) the percentage of small diameter CI main; (3) the mean UMRI of the pipe in the neighborhood; (4) the percentage of service pipes made of vulnerable materials; and (5) the total pending Class 2 and Class 3 leaks per mile. Under the neighborhood replacement program, underground facilities which are prone to leakage are retired and replaced, inside customer meters are relocated to outside, and the system is upgraded from low to medium pressure. The Commission notes that Staff does not oppose the Company's neighborhood approach to planning, which was recently evaluated by Liberty and was updated by the Company based upon Liberty's recommendations. The AG argues that the neighborhood approach: (1) has not reduced leaks on the Peoples Gas system; and (2) does not properly prioritize the replacement of the most at-risk pipe.

The Commission finds that the record indicates that the AG's leak rate analyses include leaks caused by third parties, and they do not take into consideration the effect of Chicago's harsh winters on gas mains. Additionally, the record in this case reflects that the percentage of medium pressure CI/DI pipe is a proper factor to consider in the Company's risk-ranking methodology. The Commission holds that the neighborhood approach is efficient in addressing the high risk mains and pipes within the system, and it is approved. Further, the Commission rejects the AG's proposal that it order Peoples Gas to issue a RFP for new DIMP software within 90 days. Peoples Gas has indicated that it has been meeting with several vendors and is in the process of reviewing software packages. The Commission declines to direct the Company to mandate procurement of such software or accelerating the timetable for Peoples Gas to consider procuring such software.

B. AG's Highest Risk Leak Approach

1. AG's Position

The AG recommends that Peoples Gas abandon the neighborhood approach, citing AG witness Neale's statement that while there may be some project efficiencies to replacing all targeted mains and services in lower-pressure areas in order to enable higher-pressure build-out with more modern plastic materials, this goal should not come at the expense of devoting resources to removing the riskiest segments on the Company's system first. In other words, the neighborhood approach does not necessarily achieve the greatest risk reduction per dollar spent on the SMP. AG Ex. 1.0R at 32.

In place of the neighborhood approach, the AG recommends that the Company use the DIMP to focus on replacing the most at-risk pipe on the system as quickly as possible. The AG states that Mr. Neale proposed that Peoples Gas should use this approach until leaks on the system are at a manageable level, which he defined as "leak

rates that are decreased to levels that could be safely and efficiently remedied by the Company's repair crews kept on hand for this purpose before the implementation of the accelerated program." *Id.* at 34.

The AG asserts that Mr. Neale's proposal would allow the Company to replace leak-prone infrastructure at a more reasonable cost. Mr. Neale suggested that the pace of replacement should be informed by system performance. The AG argues that, while this approach may result in a longer time frame to modernize Peoples Gas' system, the approach provides greater assurances of system safety by focusing on the worst-performing assets. *Id.* at 34.

Additionally, Mr. Neale pointed out that a more moderated system modernization approach can avoid "lumpy" investments. By "lumpy", Mr. Neale meant that replacing large portions of system assets in a relatively short period of time may result in the newly-installed assets reaching the end of their service life at the same time, thereby necessitating another round of crisis-like asset replacement. *Id.* at 35-36.

2. Peoples Gas' Position

Peoples Gas notes that the AG asks the Commission to direct the Company to abandon the neighborhood approach. The AG recommends in its place a "worst performing segments" approach under which the highest-risk mains are replaced wherever they occur on the system without attempting to group them by neighborhood. Peoples Gas urges the Commission to reject the AG's worst performing segments recommendation. First, such an approach would be more expensive for customers since it would lack the advantage of scale that comes from concentrating work in a single neighborhood. PGL Ex. 4.0 at 3. Second, slowing down the project, as the AG suggests, is inconsistent with PHMSA's Call to Action and is directly contrary to the well-recognized urgent need to completely eliminate at-risk pipe from natural gas distribution systems. PGL Ex. 2.0 at 15-16. Third, the AG's recommendation would be inconsistent with upgrading to medium pressure because such upgrades do not make technical and economic sense when they are approached in a piecemeal fashion. PGL Ex. 4.0 at 4. Finally, the AG's recommended approach would be disruptive to Chicago streets because it would require multiple visits to the same neighborhood to fix short sections of main on a case-by-case basis. *Id.*

3. Staff's Position

Staff recommends that the Commission reject the AG's worst performing segments proposal, as the AG's contention that Peoples Gas' main replacement program does not address the "worst performing segments" is wrong. According to Staff, the Company's main replacement program includes use of a main ranking index to identify the pipe segments on its system that are most at-risk for failure and most in need of replacement. Further, the AG's witness agreed that replacement of at-risk pipe is a component of the SMP both as proposed by the Company and as modified by Staff. Tr. at 375. Staff notes that Peoples Gas uses the UMRI which assigns a score from one (least at-risk) to six or higher to main segments. Peoples Gas will replace any main segment that scores a six or higher on the UMRI, thus the worst performing segments are replaced. AG Cross-Ex.

14 at 2. In Staff's opinion, the AG's argument that high risk pipe is not addressed under the neighborhood approach lacks merit.

Staff notes as well that the AG is arguing that the Company should be ordered to immediately "reconfigure" the program to focus on the worst performing segments. However, the AG offers few if any specifics as to what such a reconfiguration would entail or how long it would take. Tr. at 375. Additionally, according to Staff, the AG offers no suggestion as to how the Company should address replacement work pursuant to PHMSA's Call to Action while the SMP is being reconfigured. *Id.*

4. Commission Analysis and Conclusion

The Commission approves Peoples Gas' neighborhood approach. As described above, the Commission finds that the Company's neighborhood approach does target the worst performing and leak prone portions of the system. Peoples Gas will replace any main segment that scores a six or higher on the UMRI on an expedited basis, thus the worst performing segments are replaced. Peoples Gas then prioritizes replacement activities for remaining high-risk pipe by neighborhood, using the UMRI and other factors to most effectively schedule program activities, as discussed in more detail below. The Commission declines to adopt the AG's worst performing segments proposal because it is more expensive to customers, ignores PHMSA's Call to Action to eliminate at-risk piping on an expedited basis, is inconsistent when done in a piecemeal fashion, and would be disruptive to City residents.

C. CUB's Proposal for Prioritization Using Leak Flow Rate

1. CUB's Position

CUB states that the testimony of its witnesses, Ms. Palacios and Dr. von Fischer, address emerging technologies that can be used to identify leaky pipe in Peoples Gas' system to effectively and efficiently prioritize main replacement. CUB Ex. 1.0 at 1; CUB Ex. 2.0 at 1. CUB contends that their testimony demonstrates the benefits of incorporating new leak survey and quantification methodologies into the Company's regular operations to prioritize leak repairs and pipe replacement activities, and minimize leaks from the Company's distribution system. CUB explains that these benefits include: (1) economic efficiencies and greater cost effectiveness that directly benefit ratepayers; (2) the usefulness of the Company having additional information with which to manage the program and for the Commission to oversee program implementation; (3) increased transparency; (4) greater effectiveness in reducing leak flow rates; (5) the ability to incorporate the resulting data into proactive risk management modeling; and (6) improvement in the Company's use of its Main Ranking Index and/or neighborhood approach.

CUB maintains that this leak detection methodology will also provide the Company, the Commission and other parties with quantitative information about the condition of Peoples Gas' underground mains, including spatially-attributed leak flow rate and leak density in particular sections of the Company's service territory. According to CUB, incorporating leak flow rate data into leak repair and pipeline replacement prioritization provides enhanced efficiency and cost-effectiveness for capital investments by helping utilities identify and target sections of infrastructure associated with relatively high leak

rates, after considering safety factors, thereby generating the greatest leak reductions per dollar spent, benefitting ratepayers and the environment. CUB argues that this technology and the data captured from it can assist the Commission in structuring regulatory review of the Company's leak abatement and pipe replacement activities. CUB believes that leak flow rate data can also aid the Commission in tracking and verifying the benefits associated with leak abatement and pipe replacement activities.

CUB notes that the Company's SMP does not currently consider leak flow rate, which is the volume of methane released over time. CUB Ex. 2.0 at 2-3. CUB avers that the record demonstrates that advanced leak detection technology, due to its higher sensitivity, can help utilities find more leaks. CUB proposes that leak flow rates then be used as an additional layer, after safety factors have been taken into account, to prioritize leak repairs and pipeline replacements, by allowing for the biggest leaks or leakiest segments of pipeline to be identified and addressed sooner. *Id.*

Although the SMP has focused on reducing cast iron and ductile iron, partially for the benefit of reducing greenhouse gas emissions, the record shows that the Company has not quantified the flow rates of individual leaks on those cast iron and ductile iron pipelines and come up with a way to prioritize the leakiest segments for repair or replacement. *Id.* at 4-5. CUB argues that advanced leak detection technology and leak quantification methodologies are ready and available for use by Peoples Gas and can serve a useful purpose in prioritizing leak repairs and pipeline replacements within the context of Peoples Gas' existing SMP. *Id.* CUB recommends that the Commission direct Peoples Gas to incorporate leak flow rate data into its prioritization scheme to optimize the SMP.

CUB also points out that improved leak detection can provide useful information that aids in leak location prediction, while leak flow rate is an important parameter that can be used in the leak repair or pipeline replacement prioritization process. *Id.* at 10. CUB avers that with technology evolving to make leak quantification methods commercially available and viable and PHMSA rules requiring operators to consider all relevant data points in identifying threats to pipeline integrity, it is clear that the prevailing regulatory framework not only allows for leak flow rate to be considered in evaluating threats to pipeline integrity, but in fact, underscores the need for it.

CUB submits that the audit performed by Liberty notes several inadequacies of the Company's current methodology for prioritizing pipelines for replacement, including the inability of the UMRI to operate on a probabilistic basis, the low number of mains that meet the threshold for prioritization as defined by the UMRI, possible inappropriate weighting given to pre-1920 mains in the neighborhood approach, and lack of data quality control.

In addition to adopting and utilizing spatially-referenced advanced leak detection technology and leak quantification methodologies, CUB recommends the Company make maps of known leaks publically available. In support, CUB notes that utilities in other states have already begun making maps of their known leaks available online. CUB Ex.1.0 at 17.

In rebuttal testimony, Peoples Gas witness Kinzle dismissed the efficacy of the EDF pilot by claiming that Peoples Gas did not detect leaks at 339 of the 349 locations reported by EDF. PGL Ex. 4.0 at 6. He then suggests that advanced leak detection technology is unnecessary because “current practices for leak detection meet all regulatory requirement[s] imposed by [PHMSA].” *Id.* at 6-7. CUB shows that on cross-examination, however, Mr. Kinzle acknowledged that 342 of the leak indications that EDF found were within 60 feet of Peoples Gas infrastructure. Tr. at 79. Mr. Kinzle admitted that some of the leaks reported by the EDF data that Peoples Gas was able to find included six grade 1 leaks and four grade 3 leaks. CUB Cross-Ex. 2. Mr. Kinzle also agreed that the equipment used by EDF in the pilot is much more sensitive than the equipment Peoples Gas used when it resurveyed 100% of the 349 sites identified by the EDF pilot. Tr. at 764. CUB concludes, therefore, that it is not surprising that Peoples Gas did not detect a majority of the leaks identified by EDF in the pilot.

In response to Peoples Gas’ question regarding the costs relating to the equipment and operation of the advanced leak detection technology proposed by CUB and EDF, Ms. Palacios testified that the cost of the equipment represents a one-time upfront investment. There will be ongoing benefits associated with its use, which have been acknowledged by Peoples Gas. There also will be a return on investment with the use of the technology, which diminishes its cost over time. Tr. at 426. Further, CUB maintains that because leak prioritization involves the quantification of leak flow rates, those leak flow rates that are larger can be prioritized and because a utility would capture more gas on the front end of a project, it can capture more savings per unit of investment. Tr. at 435-36.

CUB argues that as part of redefining and reestablishing the standards for program performance for the SMP, leak quantification data would make a valuable addition to the standards of program performance identified in the Staff Report and required by the Commission’s Initiating and Interim Order. Specifically, data on the percentage of the measured leak flow rates reduced compared to the percentage of pipeline miles replaced can help the Company to observe efficiencies in leak flow rate reductions per dollar expended on replacement efforts. CUB Ex. 1.0 at 22-23. CUB argues that such a metric has a direct relationship to demonstrating improvements in system service, reliability, and cost as a result of the SMP program. *Id.* CUB argues that these important adverse effects only underscore the need for Peoples Gas to examine and take advantage of advanced leak detection technology and leak quantification methodologies in identifying and prioritizing leaky pipe for replacement.

Additionally, CUB emphasizes that Peoples Gas is in the midst of a multi-billion dollar infrastructure upgrade program with potentially severe rate consequences for Peoples Gas’ ratepayers. CUB argues that the Company should not aim to meet the bare minimum standards recommended by PHMSA, especially in light of the Liberty audit’s finding that there were several inadequacies of the Company’s current methodology for prioritizing pipelines for replacement, including the inability of the UMRI to operate on a probabilistic basis, the low number of mains that meet the threshold for prioritization as defined by the UMRI, possible inappropriate weighting given to pre-1920 mains in the neighborhood approach, and lack of data quality control. CUB argues that the scope and cost of this program calls for more careful analysis and a focus on proceeding in the most

efficient way possible. In order for Peoples Gas' pipe replacement activity to result in the most efficient use of ratepayer funds, CUB believes it should take advantage of efficiencies and economies of scale that result from fixing the largest leaks first, which can only happen if the Company can measure leak rate data by location, something existing measurement equipment is unable to do.

CUB counters Peoples Gas' conclusion that prioritizing pipe replacement based on leak rates would create a patchwork of replacement projects resulting in inefficiencies. PGL Ex. 4.0 at 7. CUB avers that reordering work within the three-year plan and within planned neighborhood and system/public improvement projects would not result in a patchwork of replacement projects any more so than already exists. CUB views this as a red herring that must be rejected by the Commission. The testimony cited in reference to this statement is Mr. Kinzle's comment that "this type of 'targeted' replacement creates inefficiencies as compared to the neighborhood approach, likely increasing the overall project cost and slowing the deadline for completion." *Id.* CUB submits that Mr. Kinzle attempts to draw a distinction that does not exist between the neighborhood approach and CUB's proposal for prioritization using leak flow rate. In relying on this testimony, which misconstrues CUB's proposal, the Company demonstrates its refusal to engage in productive dialogue that acknowledges the potential value in integrating CUB's proposal into its existing programs. CUB maintains that Peoples Gas cannot point to any legitimate reason to reject the proposal and therefore CUB urges the Commission to adopt it and require Peoples Gas to incorporate this more sensitive, advanced leak detection technology and leak quantification methods into its existing main replacement programs.

CUB avers that advanced leak detection technology and leak quantification methodologies offer valuable data that utilities across the country are beginning to use to better understand their systems and prioritize work within accelerated main replacement programs like Peoples Gas'. CUB insists that incorporating spatially attributed leak flow rate data into their current SMP prioritization scheme could serve to address several shortcomings of the current SMP plan. Namely, such data can help to: (1) more efficiently utilize ratepayer funds; (2) provide data that can be used in forward-looking models that will predict changes in risk level associated with replacement; (3) allow for better management and transparency of accelerated pipeline replacement programs; and (4) maximize reductions in methane emissions in the near term through replacing relatively small proportions of pipeline.

According to CUB, advanced leak detection technology and leak quantification methodologies should be employed by Peoples Gas to optimize leak abatement reduction strategies and can provide a useful metric by which to maximize benefits to ratepayers throughout the course of pipeline replacement programs. This can be accomplished by focusing repair and replacement efforts first on safety needs and then on the largest leaks or leakiest pipeline segments, as appropriate. CUB concludes that leak quantification provides a useful tool through which utilities may verify and validate the need for leak repair and pipeline replacement efforts, ensuring that ratepayer dollars are spent efficiently. CUB therefore urges the Commission to require Peoples Gas to adopt advanced leak detection technologies and leak quantification methods so that spatially

attributed leak flow rate data can be used on an ongoing basis by the Company to better prioritize its leak repair and pipe replacement efforts.

2. Peoples Gas' Position

Peoples Gas points out that CUB does not oppose the Company's neighborhood approach to main replacement. Tr. at 433. However, CUB recommends adding to the metrics considered under the Company's leak prioritization methodology a metric that utilizes leak volume data gathered by equipment that is being developed and promoted by the EDF. *Id.* Peoples Gas states that the factors that it currently considers to determine priority for main replacement are all focused on safety and risk and that adding CUB's proposed metric to the rankings methodology would dilute the effect of other safety and risk-based metrics that the Company currently uses to establish main replacement priority. PGL 4.0 at 6-7.

Peoples Gas also has a practical concern with adopting CUB's proposed methodology for finding leaks -- it does not work. *Id.* Of the 349 supposed leaks that EDF found using its technology during a 2014 pilot survey, only 10 were actually confirmed as leaks. *Id.* Peoples Gas contends that, even if the EDF technology was an effective means of leak detection, it would be of little value to the SMP. *Id.* at 12. The EDF technology is most useful for finding non-hazardous methane emissions -- not necessarily natural gas leaks. Thus, at most, this technology might be useful for finding non-hazardous leaks so that they can be repaired as they are found. According to Peoples Gas, that effort has little if anything to do with the SMP's goal of enhancing the safety and reliability of the Company's system. *Id.*

Peoples Gas also states that adopting CUB's proposed technology would impose costs on the Company and its customers for the equipment, the personnel needed to operate it, and subsequent field investigations. Tr. at 444-45. CUB argues that Peoples Gas would see a return of and on that investment, but CUB has not quantified that benefit. Peoples Gas contends that CUB cannot demonstrate that the EDF technology has customer benefits given its less than 3% "hit rate" when it was piloted in 2014.

3. Staff's Position

Staff states that CUB's proposal for prioritization using leak flow rates does not cause it to reconsider its support for the Company's proposed neighborhood approach to planning.

4. City's Position

It is the City's opinion that CUB's leak detection and prioritization proposal does not define or impose a distinct planning framework. Tr. at 433. The City states that if the Commission determines that CUB's proposed enhanced leak detection provides useful additional data for sequencing Peoples Gas' implementation work, the CDOT-PGL arrangements devised for any new planning template should also accommodate new leak detection information.

5. Phase II – Emerging Technologies

a. Are there emerging technologies that provide one or more alternatives to the current replacement approach?

(i) Peoples Gas' Position

Peoples Gas explains that, over the past months, Peoples Gas, CUB, and EDF have been collaborating on Peoples Gas' adoption of advanced leak detection technology as an element of the SMP. Now, Peoples Gas, CUB and EDF have collectively determined that Peoples Gas' adoption of the technology on a pilot program basis over the 2018-2021 construction seasons will allow Peoples Gas to assess the technology's efficacy, determine whether it has an overall benefit and decide whether it should be adopted on a more permanent basis. *Id.*

Under the pilot program, Peoples Gas will retain its existing neighborhood risk-ranking methodology to prioritize neighborhood replacement work and use leak flow rate data collected by advanced leak detection technology as a secondary factor to sub-prioritize work in neighborhoods with comparable risk ranks. CUB-PGL Joint Cross. Ex. 1.0. The pilot program is described in additional detail in CUB-PGL Joint Cross Ex. 1.0. Peoples Gas requests that the Commission approve the pilot program.

(ii) Staff's Position

Staff states that Peoples Gas and CUB are collaborating to adopt mobile mounted methane detection equipment as an element of the Company's SMP. This collaboration resulted in their agreement to conduct a pilot program with the technology over the 2018 through 2021 construction seasons. Under the pilot program, Peoples Gas would retain its existing neighborhood risk-ranking methodology, but would use leak flow rate data collected by the pilot program as an additional factor to further prioritize work in neighborhoods with comparable risks. Both parties request the Commission provide approval for Peoples Gas to initiate the pilot program.

Staff does not oppose the request by Peoples Gas and CUB for Commission approval of the pilot program and views it as a reasonable approach to determine if the mobile methane detection equipment provides a benefit to Peoples Gas and its customers by identifying and prioritizing leaks. Further, Staff notes that, to the extent the pilot program provides beneficial information to the Company, the timing of the pilot program (used to assist Peoples Gas's planning for the 2018 through 2021 construction seasons), coincides with the proposed timing for Peoples Gas to provide its updated engineering study and analysis in 2021. Finally, if the Commission approves the pilot program request, Staff also requests that the Commission direct Peoples Gas to provide a copy of the annual interim reports and final report (to the Commission's Director of the Safety and Reliability Division.

b. Is there an overall benefit to utilizing additional leak prioritization technology and associated metrics?

(i) Peoples Gas' Position

Peoples Gas' position on its collaboration with CUB and EDF on Peoples Gas' adoption of advanced leak detection technology on a pilot program basis is contained in Section IV.C.1.i, above.

(ii) Staff's Position

See discussion from IV.C.1.

(iii) CUB's Position

To address the Commission's request for additional testimony and briefing on the utilization and benefits of a leak prioritization methodology, CUB again presented the testimony of Virginia Palacios. Ms. Palacios' testimony demonstrates how PGL can use advanced leak detection technology data to prioritize pipeline replacement decisions in a cost effective way. She further testified regarding the benefits of a metric that uses leak flow rate data gathered by PGL using advanced leak detection technology, and recommends that the Commission adopt such a metric to track the implementation and efficiency of PGL's pipeline replacement program.

In the year since her testimony was submitted in the first phase of this proceeding, CUB notes that Ms. Palacios co-authored a paper titled "Integrating Leak Quantification into Natural Gas Utility Operations," which was published in Public Utilities Fortnightly May 2017. CUB Ex. 3.0 at 2. Additionally, she participated in field research comparing several leak quantification methodologies and met with advanced leak detection technology service providers and reviewed information supporting the technical basis for the services they offer. *Id.*

CUB witness Palacios provided additional details regarding the technology and devices employed by some providers of advanced leak detection technology and analytics. While estimates of leak size are typically made using best available estimates of pipeline type, size and pressure, and historical leak data, CUB maintains that such estimates provide limited accuracy and are not typically used for the purposes of prioritizing pipeline replacements. *Id.* at 4. According to CUB, traditional leak surveys can miss up to 66% of leaks, rely on dated and sometimes incomplete records, and may not provide spatially-attributed information that can be easily linked to infrastructure asset maps to identify the specific geographic source of the leak. *Id.*

CUB maintains that advanced leak detection technologies, leak quantification methodologies, and the analytics and visualizations that can be developed using these methods, can provide more accurate and useful tools in the Company's leak prioritization efforts. *Id.* at 4-5. CUB explains that advanced leak detection technology involves the use of sensitive sensors (*e.g.* methane sensors with detection limits on the order of parts per billion) installed on vehicles to collect emissions data such as methane and ethane while driving selected survey routes. *Id.* CUB further explains that the emissions data are then analyzed using algorithms (typically proprietary) to draw out key leak information such as estimated leak flow rate (*e.g.* liters per minute), leak density (*e.g.* leaks per mile),

and probable grade (e.g. Grade 1, 2, or 3). *Id.* CUB notes that data collected by providers of advanced leak detection technology and analytics are generally available in real-time, and can be displayed as an overlay on maps of a utility's infrastructure. *Id.* at 5. According to CUB, this can facilitate investigation, communicate leak location to repair teams, and facilitate verification of repair efficacy. *Id.* CUB maintains that the data gathered through advanced leak detection methods results in the collection of spatially-attributed leak flow rate data, which is information about above- or underground infrastructure leaks that is linked to or mapped with specific geographic coordinates (*i.e.* latitude and longitude). *Id.* at 6. CUB avers that the technology is available from several service providers including Picarro and ABB (formerly Los Gatos). *Id.* at 6.

Attached to Ms. Palacios's Direct Testimony on Rehearing were responses to letters of inquiry ("LOIs") sent by CUB to various providers of advanced leak detection technology and analytics. CUB Exs. 3.1 and 3.2. According to CUB, the responses provided additional information regarding recent improvements in the technology and usability of the data. CUB maintains that these improvements include better source attribution, leak flow rate quantification software, leak locating and survey completeness features, and grading probability software. CUB provided some additional examples of these improvements, which include:

- Dual deployment of methane and ethane sensors, which allows for the identification of thermogenic methane (typically associated with natural gas leaks) and biogenic methane (typically associated with sewer or landfill methane emissions), which results in fewer "false positives" during leak surveys.
- Software features that can attribute leak indications to the utility's infrastructure (if the utility provides this data), and summarize the results of a leak quantification survey in a way that does not trigger the utility's responsibility to investigate each leak indication.
- Use of wind data to predict where leaks are located relative to the vehicle's position, estimate areas where the equipment's field of view was likely to have covered, and identify geographic areas that the advanced leak detection technology is not able to reach, allowing utilities to prioritize foot surveys in those areas.
- Improved analytics that can be used to prioritize each leak indication by the likelihood that it corresponds to a hazardous leak, which can prioritize leak investigations in a way that maximizes the number of hazardous leaks found per effort spent investigating leaks.

CUB Ex. 3.0 at 6-10.

CUB asserts that using advanced leak detection technology and leak flow rate data to prioritize pipes for repair or replacement – as set out in the Pilot – will provide several benefits to the Company, ratepayers and the environment, including: (1) efficient use of ratepayer funding for infrastructure improvements; (2) availability of data that enhances system condition assessments, risk assessments, and decision making capability; (3) transparency for utilities, regulators, and ratepayers; and (4) avoided social costs of climate change. *Id.* at 11. CUB suggests that the technology and the data gathered can

provide additional advantages, by visualizing leaks in connection with specific geographic locations, and can also provide significant analytical capability to the Company, allowing the Commission to verify Company data. CUB avers that this can enhance system condition assessments, risk assessments, and decision-making capability resulting in cost savings, improved risk mitigation, improved scoping and scheduling of leak repair and pipe replacement programs, and meaningful data with which the Company and others can objectively assess replacement program efficacy.

According to CUB, advanced leak detection technology and leak quantification methodologies can also improve risk assessments by providing direct metrics of leak size, and other detailed information about leak expression and density – such as leak flow rate – in formats that are easy to compile and analyze. *Id.* at 12. CUB further states that advanced leak detection technology is more sensitive than traditional technologies and data can be captured in a timelier manner. CUB avers that leak flow rate is a meaningful data point that can be used to estimate the probability of a leak indication representing an immediate hazard. *Id.*

CUB states that advanced leak detection technology is typically able to find many more leaks than traditional technologies. *Id.* at 247-263. For example, CUB points to CenterPoint Energy, which conducted pilots in Houston and Minneapolis using advanced leak detection technology and analytics, with both pilots reporting improvements in leak find rates five times greater than traditional methods. *Id.* Similarly, says CUB, in three pilot studies using advanced leak detection technology and analytics, Pacific Gas & Electric found on average three times more gradable leaks when using advanced leak detection technology over traditional technologies. *Id.* In California, CUB points out that the Public Utilities Commission reported that utilities experienced a 21% increase in the number of leaks detected from 2013 to 2014, due partly to the use of advanced leak detection technologies being employed. *Id.*

CUB maintains that, through reliable leak quantification and improved detection of leaks, advanced leak detection technology allows for a more complete assessment of pipeline risk, and provides data that can be used to assess risk mitigation from pipeline replacements over time. *Id.* at 13. CUB contends that data from advanced leak detection technology, such as leak flow rate and leak density, also increases the accuracy of prioritization evaluations, which can lead to more effective and impactful replacement decisions. *Id.* CUB concludes that finding the pipeline segments with the greatest number of leaks makes it possible to prioritize those segments sooner, thereby reducing the risk posed by those segments. *Id.*

CUB states that, as detailed in CUB-PGL Joint Cross Ex. 1, PGL has agreed to conduct the pilot in response to the Commission's March 1, 2017 Order Directing Additional Hearings, which solicited additional information regarding the potential benefits of incorporating a leak prioritization methodology into PGL's existing pipeline replacement prioritization approach, and "whether there will be an overall benefit to utilizing this technology and metric." March 1 Order at 1. The pilot program has the following intentions, according to CUB:

- does not dilute the effect of the safety-based ranking methodology that PGL uses to rank neighborhoods for replacement of at-risk natural gas mains;

- allows PGL to utilize advanced leak detection technologies and leak quantification methods on a pilot basis;
- gives the parties time to collaboratively assess the efficacy of such technologies over the course of the 2018-2021 construction seasons; and
- does not require PGL to release sensitive and proprietary Geographical Information System shapefiles that map out the precise locations of PGL infrastructure.

Id. CUB reports that the pilot will be implemented in program years 2018 (to the maximum extent possible), 2019, 2020 and 2021, during which leak flow rate data will be collected by a contracted service provider or PGL using advanced leak detection and quantification technology, which will be considered in prioritizing leak-prone pipe (“LPP”) replacement under the SMP. CUB states that the pilot will integrate advanced leak detection and quantification technology and data with the neighborhood approach to prioritize neighborhoods for replacement when they exhibit greater relative leak flow rates and leak counts. CUB maintains that, under the terms of the pilot, PGL will use leak flow rate data as a secondary factor, after first considering neighborhood risk rank, to sub-prioritize among neighborhoods with comparable risk ranks.

Under the pilot, on or before December 1 in 2017, 2018, 2019, and 2020, PGL will use the methane emissions per mile metric to re-prioritize neighborhood replacement work for 2018-2021 for those neighborhoods with comparable risk ranks. At the commencement of the pilot program, says CUB, ranking indices that differ by less than three points shall be considered comparable for this purpose. For example, CUB points out that if Neighborhood A has a ranking index of 185 and Neighborhood B has a ranking index of 182.1 under PGL’s safety-based ranking methodology but the methane emissions per mile for Neighborhood B are greater than the methane emissions per mile for Neighborhood A, then PGL will prioritize work in Neighborhood B. CUB maintains that, under the pilot, PGL shall have the discretion to alter this definition of comparable risk ranks, from time to time, for the duration of the pilot program. CUB points out that, while the technology may not be fully leveraged in 2018, and reprioritization of neighborhood replacement work in accordance with leak flow rate may be untenable due to constructability constraints, PGL will use all reasonable efforts to use advanced leak detection technology and leak quantification methods for its neighborhood replacement work for 2018. CUB asserts that PGL further agreed to evaluate the technology and consider other use cases for which the leak detection and leak quantification services may be used.

As part of the agreed pilot, states CUB, PGL will provide to the Commission annual interim reports (by December 31st of the relevant calendar year), as well as a final report at the conclusion of the pilot, on the following:

- Explanation of the advanced leak detection and leak quantification technology used, including description of equipment and software, sensitivity and capabilities relative to equipment and technology traditionally used by PGL for these purposes.
- Description of methodology used to integrate leak flow rate data into the LPP replacement prioritization scheme, *i.e.*, as an additional factor to supplement neighborhood risk ranking.

- Depiction of results, *i.e.*, (1) tabular representation of aggregate leak flow rate for each neighborhood targeted, ranking of each neighborhood using leak flow rate relative to risk ranking based on existing algorithm, and final prioritization rank after considering leak flow rate data, and (2) visual representation of this data using maps.
- Description of all use cases other than LPP replacement prioritization for which the technology is used by PGL, *e.g.*, prioritizing repair of Grade 3 leaks, emergency survey, etc.
- Technical, operations and other changes implemented in order to integrate leak flow rate data into the LPP replacement prioritization scheme as part of the pilot
- Additional technical, operations and other changes needed to integrate leak flow rate data into the LPP replacement prioritization scheme on a longer-term basis
- Analysis of the costs of integration and benefits for the duration of the pilot. At a minimum, data on the following cost and benefit categories to be provided:

Costs

- Hardware costs
- Software costs
- O&M costs
- Incremental staff costs

Benefits

- Efficiency benefits linked to use of new technology for LPP replacement
- Any potential risk reduction benefits
- Lost gas/methane emission reduction
- Challenges and opportunities identified by PGL with respect to integration of leak flow rate data into LPP replacement activities on a longer term basis (if any).
- Discussion of steps taken/proposed to be taken to address such challenges.
- Discussion of other potential benefits or uses of the technology.

According to CUB, this data will assist the Commission in evaluating the efficacy of PGL's use of the technology and will quantify the benefits. CUB therefore concludes that the Commission should direct PGL to compile and submit the reports as laid out in CUB-PGL Cross Ex. 1.

In addition to advocating for adoption of the pilot described in CUB-PGL Ex. 1, CUB advocates for certain metrics to be tracked and reported to examine the efficacy of the pilot. CUB points out that advanced leak detection technology and leak quantification can provide data that is relevant to forward-looking risk models, which Liberty noted as one of the Company's deficiencies (Liberty, May 2015, Recommendation F.5). CUB maintains that this recommendation is achieved through the two metrics PGL has agreed to report on as part of the pilot:

- A metric that reports a list of the neighborhoods that are re-prioritized based on the result of leak flow rate data; and
- A metric that measures annual methane leak flow rate reduction based on the mileage of retired pipe and the leak flow rates estimated for those miles using advanced leak detection technology and leak quantification methods.

According to CUB, this data will provide useful input to assist the Company, ratepayers, and the Commission in evaluating the efficacy of the pilot and the efficacy of Company's pipeline replacement program in reducing leaks. *Id.* at 28. This information can also be used to evaluate the pace at which risk is mitigated, and whether the scheduling of each neighborhood for replacement has been prioritized in a way that optimizes risk mitigation, and allows for replacement program progress to be tracked and assessed frequently and easily, avers CUB. *Id.*

CUB claims that there are many possible sources of cost savings from the use of advanced leak detection technology and leak quantification. *Id.* at 15-18. CUB maintains that using advanced leak detection technology for the prioritization of pipeline replacements can lead to both savings of lost gas, which has a value in itself, but also reduced numbers of leaks that would have to be investigated and repaired, incurring operation and maintenance costs. In addition to these two most obvious cases, CUB states that advanced leak detection technology and associated analytics can be used to improve efficiency of leak surveys that are taken on for a variety of reasons, whether targeting leaks that are likely to be hazardous, or surveying for potential new leaks that could occur after a disaster. *Id.* CUB further asserts that using advanced leak detection technology and leak quantification to improve the efficiency of pipeline replacement programs and leak repair programs results in more gas captured, fewer leaks in a system, and cost savings for ratepayers. *Id.*

Ms. Palacios provided approximate estimates of potential cost savings that could be realized through the use of advanced leak detection technology and leak quantification. *Id.* Though precise calculations require information not available to Ms. Palacios in this proceeding (such as the value of reduced risk per leak), CUB pointed out that she was able to provide an example of one of the fundamental cost savings offered by advanced leak detection technology and leak quantification: reduced gas loss from the system. Using a few assumptions, Ms. Palacios estimated potential savings from employing advanced leak detection technology and leak quantification in the neighborhood approach. *Id.* CUB explained that, in 2015, the Company's Natural Gas Deliveries reported on EIA Form 176 were approximately 160 billion cubic feet. Meanwhile, reports CUB, PGL's reported "Losses from Leaks Volume" represented about 3% of Natural Gas Deliveries. *Id.* While the means of estimating losses from leaks is not clearly defined by the EIA, CUB pointed out that, for the sake of being conservative, Ms. Palacios assumed that the Company's rate of losses from leaks is 1.5%. At a citygate price of \$3.85 per thousand cubic feet (EIA estimate for Illinois in 2015), CUB stated that the value of that lost gas was nearly \$10 million. *Id.* Using these assumptions, said CUB, if advanced leak detection technology and leak quantification was used to prioritize replacements for the pipes representing the top 10% of losses from leaks, it could save \$1 million. CUB concluded that this may represent a conservative estimate of the potential savings, considering that Public Service Electric & Gas ("PSE&G") was able to prioritize replacements on pipelines that were leaking more than 30% of the estimated leak flow rate using advanced leak detection technology and leak quantification methodologies. *Id.*

CUB asserts that prioritizing pipe replacement and savings attributable to lost gas are only two potential benefits of the technology and methodology and that additionally, potential cost savings can be found through:

- Capturing gas through identification and remediation of high volume leaks
- Reducing risk through replacement of pipe segments with high leak density
- Reducing risk through auditing a walking survey
- Responding to fewer odor calls
- More quickly locating hard-to-find leaks
- Conducting rapid post-emergency survey
- Finding leaks during post-construction quality control
- Real-time source attribution, if using methane/ethane sampling
- Verifying quality of a system prior to asset acquisition

CUB Ex. 3.0 at 16-17. CUB maintains that the cost savings associated with these benefits result from retiring more risk per dollar than traditional survey methods allow, by identifying more leaks more effectively. According to CUB, finding these additional leaks can help the Company to better prioritize system investments where they are needed most, avoiding the costs of routine maintenance for leak abatement and the costs of potential incidents. Further, as noted in CUB Ex. 3.2, service providers are offering analytical capabilities with their technology that aggregate data on leak flow rates and number of leaks for each segment, avoiding the need to investigate a large number of additional new leaks.

CUB concludes that the pilot will be a valuable addition to the Company's neighborhood approach and will help provide relevant data and metrics the Commission can use to evaluate the SMP. CUB maintains that the pilot ensures PGL will incorporate the most technologically-advanced leak detection and quantification methods available into its existing prioritization approach. CUB points out that considering leak flow rate in pipeline replacement scheduling can help PGL capture greater volumes of gas earlier in their replacement program, which reduces risk, improves efficiency and benefits ratepayers. Because leak flow rate is an indicator of the overall volume of gas lost from a system, states CUB, a prioritization ranking that includes leak flow rate should result in a replacement program that addresses the leakiest pipes sooner, which will provide cost efficiencies and important safety and environmental benefits. CUB makes clear its position that the metrics and reporting PGL agrees to provide as part of the Pilot will assist the Commission in identifying and measuring these benefits.

CUB emphasizes that PGL has agreed to conduct the pilot and the only other party to address, provided additional support for it: "Staff anticipates leak detection and prioritization will be something the Commission's consultant might consider in evaluating the use of new technology to improve project efficiency. Staff Ex. 4.0 at 25. CUB concludes that the pilot will be a valuable addition to the Company's neighborhood

approach, should lead to more efficient and effective pipeline replacement, will help provide relevant data and metrics the Commission can use to evaluate the SMP, and will aid in abatement of atmospheric methane emissions. CUB continues that the metrics and reporting PGL agrees to provide as part of the pilot will assist the Commission in identifying and measuring the benefits of leak abatement. Thus, CUB advocates for Commission adoption of a directive that PGL conduct the pilot set forth in CUB-PGL Joint Cross Ex. 1.

6. Commission Analysis and Conclusion

The Commission approves the pilot program jointly developed by Peoples Gas, CUB, and EDF, and directs Peoples Gas to conduct the pilot as described in CUB-PGL Joint Cross Ex. 1.0. The Commission finds that Peoples Gas' adoption of advanced leak detection technology on a pilot program basis will allow Peoples Gas, the Commission and other stakeholders to assess the technology's efficacy, determine whether it has an overall benefit, and decide whether it should be adopted on a more permanent basis.

The Commission further directs Peoples Gas to provide the following metrics associated with the pilot:

- A metric that reports a list of the neighborhoods that are re-prioritized based on the result of leak flow rate data; and
- A metric that measures annual methane leak flow rate reduction based on the mileage of retired pipe and the leak flow rates estimated for those miles using advanced leak detection technology and leak quantification methods.

As set forth in Sections 2.2 – 2.4 in CUB-PGL Joint Cross Ex. 1, Peoples Gas is to file with the Commission on eDocket annual interim reports, as well as a final report at the conclusion of the pilot by December 31st of the relevant calendar year.

D. Risk-Ranking Processes

1. Peoples Gas' Position

Peoples Gas explains that the neighborhood approach considers five factors to rank the relative risk of mains in neighborhoods: (1) the percentage of medium pressure CI/DI pipe; (2) the percentage of small diameter CI main; (3) the mean UMRI of the pipe in the neighborhood; (4) the percentage of service pipes made of vulnerable materials; and (5) the total pending Class 2 and Class 3 leaks per mile. PGL Ex. 1.0R at 21-22. Peoples Gas states that the neighborhood replacement work is prioritized based on the risk rankings and practical considerations such as constructability, the relationship of a given neighborhood to previous work, and impacts from other construction activities. *Id.* at 22-23. Each year, the risk rankings and practical considerations are used to update the rolling, three-year plan. *Id.* at 23. This assures that Peoples Gas is constantly acting on the most up-to-date information to prioritize mains replacement and maximize the SMP's risk-reduction benefits. *Id.*

2. Staff's Position

Staff notes that, to assist in determining which neighborhoods are included in the rolling three-year plan, the Company has a neighborhood ranking system which uses several metrics, including the UMRI. PGL Ex. 1.0R at 21. According to Staff, the Company developed the UMRI with the assistance of outside experts, and it has been in use since 1990. *Id.* at 22. The UMRI develops an index factor based upon past performance indicators. Some of the indicators tracked include historical information, cracks, breaks, observations and repairs on pipe. The UMRI assigns a numerical risk value to each main section evaluated, from one as the least risky pipe to six or greater as most risky.

Staff observes that, in addition to the UMRI, other factors that go into determining the rank of a neighborhood include the Company's DIMP, which tracks the percentage of medium pressure and CI pipe, as well as the percentage of small diameter CI pipe; the number of pending unrepaired leaks; and the number of services that are constructed of vulnerable materials. Vulnerable materials include CI, DI, bare steel, copper and clear plastic. PGL Ex. 1.0R at 22. The neighborhood ranking system is then utilized to create the rolling three-year plan. While the neighborhood ranking system informs the priority of replacement, it does not consider other important factors such as constructability, the relationship of a given neighborhood to previous work performed and impacts of other known construction activities. *Id.* at 22-23. Therefore, a neighborhood may be included in the three-year plan in a sequence which differs from its neighborhood ranking. *Id.* at 23.

Staff points out that the Company's Neighborhood Approach and its use of the UMRI was recently evaluated by Liberty and that the Company updated its approach based upon Liberty's recommendations. Staff Ex. 1.0 at 7. Staff supports the use of the neighborhood ranking system as the basis for the Company's rolling three-year plan.

3. Commission Analysis and Conclusions

As stated in Section IV.A.5 above, the Commission approves the Company's current risk-ranking methodology, supported by Staff, which considers the following five factors: (1) the percentage of medium pressure CI/DI pipe; (2) the percentage of small diameter CI main; (3) the mean UMRI of the pipe in the neighborhood; (4) the percentage of service pipes made of vulnerable materials; and (5) the total pending Class 2 and Class 3 leaks per mile. Peoples Gas will also use leak flow rate data as a secondary factor, after first considering neighborhood risk rank, to sub-prioritize among neighborhoods with comparable risks.

E. Public Way Coordination

1. Peoples Gas' Position

Peoples Gas submits that it has worked to improve communication and coordination with the City. Peoples Gas explains that it has, among other things, met regularly with senior managers at the City; provided more detailed schedule information to better coordinate work with the City; held periodic process improvement discussions to improve the efficiency and effectiveness of communications and coordination; more

proactively planned and coordinated permit requests; and improved coordination with the City's water and sewer departments to maximize efficiencies in terms of when and how often streets are opened. PGL Ex. 1.0R at 33. Peoples Gas notes that City-CUB witness Cheaks stated that "there has been a noticeable improvement in the lines of communication as a result of...joint City-PGL efforts." City-CUB Ex. 1.0 at 14.

In its testimony, the City recommends that the Commission direct Peoples Gas to report on granular SMP performance metrics. *Id.* at 46. Peoples Gas explains that such metrics would not enhance the Commission's ability to oversee the SMP, but may be relevant to the City. Peoples Gas states that it remains committed to working with the City to address its need for more specific information from the Company.

2. Staff's Position

Staff understands that the Company's PI/SI Program is one of the four subprograms of the SMP as originally proposed by the Company. PGL Ex. 1.0R at 15. PI/SI projects are similar in scope to projects in the Neighborhood Replacement Program, but differ in that the Company does not typically control the scope or schedule of the projects. In fact, Peoples Gas undertakes these investments in response to third-party requests to relocate or replace facilities due to conflicts with a public improvement project or in concert with work needed to address capacity or reliability concerns. *Id.* at 16.

In Staff's opinion, Peoples Gas should be encouraged to take advantage of opportunities associated with the PI/SI Program, since the program is a logical activity that should improve the efficiency of Peoples Gas' SMP. Staff Ex. 1.0 at 9. According to Peoples Gas, the most common example of public improvement involves the City's Sewer and Water Department upgrading its system. Under such circumstances, the City will invite Peoples Gas to conduct its system upgrade while the street is open to accommodate the City work. Since Peoples Gas may be required to move its facilities to support the City's upgrade, taking advantage of the open street allows Peoples Gas and the City to share restoration costs. Tr. at 176. Peoples Gas will take advantage of the opportunity to upgrade its system at the same time, if possible. *Id.*

Staff understands Peoples Gas to contend that system improvement is typically driven by customer needs, such as new development, poor supply to an area, water infiltration - basically some event affecting Peoples Gas' ability to serve its customers. Rather than replace the failing existing low-pressure system to address the concern, Peoples Gas, if possible, will upgrade its system in that area since the Company must open the street to fix the issue anyway. *Id.* at 177. This concept is consistent with Staff's testimony that it is logical for Peoples Gas to upgrade its system, if possible, whenever the Company or another party causes the opening of the street versus having Peoples Gas return to the same location a second time to conduct upgrade work in the future. Tr. at 268.

3. City's Position

The City states that using Peoples Gas' pre-Reorganization performance as an evaluation baseline, City-CUB witness Cheaks assessed Peoples Gas' current implementation performance to identify areas of strength and weakness. That effort revealed that Peoples Gas does not collect and report performance data in a way that

facilitates evaluation, meaningful analysis, or construction management oversight. City-CUB Ex. 1.0 at 18. The City points out that the lack of consistently-reported data over time was a further complication. However, CDOT's first-hand experience and Public Way operations data confirmed the persistence of construction deficiencies Mr. Cheaks identified in an earlier Commission proceeding. City-CUB Ex. 1.1. Mr. Cheaks presented CDOT data on the citations and fines incurred by Peoples Gas in City-CUB Exhibit 1.2 and the Company's permit carryovers in City-CUB Exhibit 1.4. Mr. Cheaks also recounted incidents illustrating implementation difficulties that would not be discernible from the high-level metrics and infrequent reports that Peoples Gas now provides, or from those it proposes. City-CUB Ex. 1.3. The City notes that only Peoples Gas can collect and report data capable of identifying the causes of persistent miscues for correction.

The City states that incomplete or inaccurate information increases the difficulty of construction coordination, and construction costs, for all Public Way users. For example, some scheduling information CDOT receives from Peoples Gas covers broad areas and uses very inclusive timelines. Such data are not specific enough for efficient project coordination. Given the scope and duration of Peoples Gas' SMP, problems with even a small percentage of Peoples Gas' thousands of permit projects can cause a large number of instances requiring labor-intensive responses by CDOT. City-CUB Ex. 1.0 at 31.

The City contends that the persistence of an unacceptable level of performance is further support for timely and robust reporting that can guide implementation improvements. At the beginning of a new implementation approach, the ability to make timely data-driven improvements is especially important.

4. Commission Analysis and Conclusions

While the Commission acknowledges there have been improvements in the coordination between Peoples Gas and the City, according to the City, some problems persist, significantly in the area of consistent reporting. With a project of this size, coordination with the City is of utmost importance. In Docket No. 14-0496, the Commission directed Peoples Gas' new management to ensure that the Company works to coordinate with the City in the execution of the SMP. The Commission agrees with Staff that the Company should be encouraged to take advantage of opportunities associated with the PI/SI Program, since the program should improve the efficiency of Peoples Gas' SMP. The Commission finds that Peoples Gas has made progress to better coordinate its work with the City, and has taken the Commission's directive seriously. Further, the Commission encourages Peoples Gas and the City to collaborate outside the context of this docket regarding information sharing and reporting.

V. PROGRAM COST

A. Phase II – Overall Cost of Program

1. What are the factors that contributed to the significant increase in the actual and estimated cost of the program over time?

(i) Peoples Gas' Position

Peoples Gas explains that when WEC took over management of the SMP following its purchase of Integrys in June 2015, it conducted a thorough evaluation of the program, including its cost. As part of that effort, and in response to a Commission directive, Peoples Gas' new management hired a nationally-recognized engineering firm, Burns & McDonnell, to develop a long-term cost and schedule model. PGL Ex. 5.0 at 40-42. Burns & McDonnell's findings were reported to the Commission and made public on November 30, 2015. *Id.* Peoples Gas witness Mr. Hesselbach provided a detailed explanation of the reasons that the cost estimates for SMP increased from prior calculations. These reasons included:

- The Burns & McDonnell cost and schedule model was an “all-in” model, which contained all reasonably-foreseeable costs in connection with the program. Earlier estimates, including that presented in Peoples Gas' 2009 rate case, were not based on a comprehensive view of cost and schedule.
- Earlier estimates did not have the advantage of data gained from actual experience operating the accelerated program, unlike the Burns & McDonnell cost and schedule model.
- Earlier estimates covered a more limited program scope, and did not include the full range of work necessary to modernize Peoples Gas' system, including high pressure and transmission work.
- As the economy has improved since 2009, the amount of Public Improvement/System Improvement work, which is relatively more expensive than Neighborhood work, has increased.

Id. Staff witness Lounsberry did not take any issue with Mr. Hesselbach's explanation. Staff Ex. 4.0 at 19. While it is regrettable that earlier estimates were off the mark or used for purposes for which they were never intended, Peoples Gas is confident that the Burns & McDonnell cost and schedule model provides as accurate an estimate of overall long-term costs as is possible for a project of the scope and duration of the SMP. PGL Ex. 5.0 at 40-42.

The AG urges the Commission to require Peoples Gas to report on cost savings falling into six specific categories, which align with categories of potential savings that were identified in Burns & McDonnell's cost and schedule model. Peoples Gas argues that such reporting should not be required, for several reasons. First, Peoples Gas does not track SMP efficiencies according to the categories listed in the Burns & McDonnell model because efficiencies are realized across categories of work and multiple different efficiency gains may contribute to overall gains within any one of the Burns & McDonnell

categories. PGL Response to AG Motion to Compel at 4. Conversely, multiple Burns & McDonnell categories can contribute to the results in one category tracked by Peoples Gas -- for example, cost per mile of main. *Id.* While it does not track SMP efficiencies according to the Burns & McDonnell categories, Peoples Gas does track cost and quantity totals against the baselines set in its three-year plan. This will allow Peoples Gas to track trends over time and examine efficiencies gained over the course of the SMP. *Id.*

Peoples Gas explains that it would not be the simple matter, as the AG suggests, to track SMP efficiencies against the Burns & McDonnell categories. Doing so would require untangling the efficiencies that are realized across a very large program and fitting them into prescribed categories of cost savings. *Id.* at 6-7. Each project completed under the SMP entails hundreds, if not thousands, of individual interactions with contractors, the City and other stakeholders; myriad decisions about procurement of materials and labor; and choices about project execution and restoration. Reworking the Company's recordkeeping and engineering functions to fit the AG's preferred approach to tracking savings would impose a severe burden on Peoples Gas. Moreover, Peoples Gas does not even possess all of the raw data it would need to calculate savings according to the Burns & McDonnell categories. For example, computing efficiency in contractor labor would require detailed information from contractors regarding their use of labor and equipment for specific tasks to determine whether they are becoming more efficient over time. This would obfuscate the insights gained by tracking bottom line costs-per-unit or work-completed metrics, as Peoples Gas has proposed to do, and would provide, at best, an incomplete picture of efficiencies gained. Accordingly, Peoples Gas does not see value in collecting this data and its agreements with contractors do not require them to collect or provide this data. Therefore, to even be able to perform such an analysis in the future, not only would Peoples Gas have to rework its own internal processes, but it would also have to renegotiate its agreements with contractors and force them to revise their own internal policies and procedures. *Id.*

In response to the AG's argument that Peoples Gas' management may be "overwhelmed" by the SMP's complexity, and that higher-than-projected costs may continue because the SMP is being pursued in "a confined urban environment with the commensurate difficult working conditions", Peoples Gas counters that the AG concedes that "Peoples Gas' new management may be able to manage these [difficult working conditions] more effectively than its predecessors." The lone concrete example that the AG cites in support of its prediction that costs will nevertheless continue to increase is "problematic adherence to City of Chicago Department permitting and restoration regulations." *Id.* However, Peoples Gas submitted un rebutted evidence showing that Peoples Gas has observed a substantial improvement (over 50%) in its ability to complete projects within the 90-day permit window between 2016 and 2017. Peoples Gas also demonstrated a dramatic reduction in SMP violations and citations between 2016 and 2017.

Peoples Gas witness Mr. Hesselbach summarized Peoples Gas' position on Mr. Coppola's claim that Peoples Gas is "overwhelmed" by the SMP in his rebuttal testimony:

Q. Mr. Coppola charges that you fail to acknowledge that
"the sheer size of the AMRP has overwhelmed the

management of [Peoples Gas], its resources, talent, and capabilities.” Do you agree?

A. No. Any organization taking on a multi-decade and multi-billion dollar program goes through growing pains. Over the last several years, we have been engaged in scaling up talent, resources and delivery capabilities to meet the goals of the SMP. The rolling three-year plan is the direct result of Peoples Gas’ efforts to deliver a better SMP program. We are focused on the future of the SMP while learning from the lessons of the past. We are certainly not what Mr. Coppola has described as “overwhelmed.” Peoples Gas -- at all levels of the company -- has engaged in a proactive process to better adapt to changing regulations, coordinate with several external agencies, accommodate the needs of a thriving city and be mindful of the impact to its customers all the while staying focused on a singular mission of efficiently improving system safety and reliability.

PGL Ex. 7.0 at 22-23. The AG’s baseless speculation about Peoples Gas’ management being “overwhelmed” by the SMP should be rejected.

(ii) Staff’s Position

Mr. Hesselbach noted that long-term estimates for programs like SMP are of limited value. He then noted that the Burns & McDonnell (“B&M”) model provided a range of projected costs and was designed to reflect realistic assumptions for contingencies and changing circumstances. The model was built on data collected during the early years of program acceleration and, as such, the B&M model provided a more accurate estimate of program costs than what prior Peoples Gas management had provided to the Commission including the cost estimate provided in Peoples Gas’ 2009 rate case. PGL Ex. 5.0 at 40-42. Staff has no reason to take issue with the Company’s position on this topic. Staff Ex. 4.0 at 19.

(iii) AG’s Position

The AG states that Mr. Coppola testified that a contributing factor in the escalating cost of the program is that the SMP overwhelmed Peoples Gas’s resources and capabilities. In Mr. Coppola’s words, “The large size of the undertaking and the complexity of working in a confined urban environment with high concentration of residential buildings, commercial operations, and heavy vehicle traffic created multiple challenges and cost inefficiencies.” AG Ex. 4.0 at 27-28. Mr. Coppola added that many challenges including problematic adherence to City of Chicago Department of Transportation permitting and restoration regulations also contributed to increasing costs of the AMRP.

The AG adds that Mr. Coppola cautioned that these problems remain. Chicago is still a confined urban environment with the commensurate difficult working conditions. Although Peoples Gas’s new management may be able to manage these more effectively than its predecessors, Mr. Coppola stated that the aggressive work schedule and large

capital investments PGL advocates are an invitation for similar problems to reoccur. Mr. Coppola noted that recent evidence supported his concerns, testifying that “the December 2016 Month-End Report shows that, despite the best hopes of the new management, PGL exceeded budgeted expectations in per-unit cost for 2016 construction activities in the Neighborhood Program with \$1.31M/mile for main installment against \$1.22M/mile expected, \$0.08M/mile for main retirement against \$0.05M/mile expected, and \$4,479/service pipe for service installation against \$2,968/service pipe expected.” *Id.* at 28, *citing* PGL December 2016 Month-End Report, January 31, 2017 at 3.

Mr. Coppola concluded that the risk that cost overruns caused by the difficult work environment Chicago presents is another reason for the Commission to require Peoples Gas to throttle back the pace of the SMP.

(iv) Commission Analysis and Conclusion

The Commission appreciates the information and the positions of the parties on this issue. The Commission will use this information in determining the other issues for inclusion in the Final Order.

2. What level of estimated annual spending on SMP would result in optimal cost per unit of work completed?

(i) Peoples Gas’ Position

Peoples Gas explains that an annual investment of \$300 million, as set forth in Peoples Gas’ three-year plan, is optimal. PGL Ex. 5.2 at 37-38. This level of annual investment will put Peoples Gas on track to complete the SMP by 2035 to 2040. *Id.* In Peoples Gas’ judgement, finishing the SMP in this timeframe will adequately guard against safety risks. *Id.* A target end-date of 2035-2040 is also consistent with the recommendations contained in the Kiefner Study, which identified 2036 as a reasonable end date. *Id.* Further, the SMP is a City-wide program involving the replacement of more than 2,000 miles of underground pipe and requiring coordination among 27 entities, including the City, that own assets under streets and other public ways. *Id.*, *citing*, City of Chicago’s Office of Underground Coordination website. Given the complexity of this challenge, a target end date of 2035 to 2040 allows for a pace of work that is realistically achievable in light of Company and contractor resources and the level of coordination necessary among Peoples Gas, the City and other third parties. *Id.* This end date is also consistent with PHMSA’s Call to Action, which, while not specifying a year by which cast iron and ductile iron mains need to be replaced, supports accelerated efforts toward this goal. *Id.*

(ii) Staff’s Position

Mr. Hesselbach indicated that Peoples Gas’ current three-year plan had set investment levels of approximately \$300 million per year (PGL Ex. 5.0 at 43) and provided detail regarding the Company’s projected SMP overall capital expenditures. PGL Ex. 7.2. Staff has no reason to take issue with the Company’s estimated annual spending.

(iii) Commission Analysis and Conclusion

The Commission notes that the Company is proposing an annual spending of approximately \$300 million for the optimal level of completing this project by 2035 to 2040. Staff does not dispute the details provided by Peoples Gas and does not take issue with the cost projections. The Commission finds that it does not have the ability to limit or reduce the spending limits on this program in this docket. However, the Commission will be reviewing the expenditures of the Company to determine prudent and reasonable costs in annual QIP reconciliations and any future rate case filings by Peoples Gas.

B. Bill Impacts/Customer Affordability

1. Peoples Gas' Position

Peoples Gas observes that the Commission's Initiating and Interim Order directed the Company and the parties to evaluate the SMP's cost, which the Company has done. PGL 3.0R at 3. Peoples Gas explains that replacing its CI/DI mains -- many of which were installed over a century ago and are prone to leaks -- with polyethylene pipe will result in operations and maintenance savings. PGL Ex. 1.0R at 6, 9-10. The Company also presented a bill impact analysis to provide the Commission, Staff, the parties and the public with cost data necessary to evaluate the SMP. *Id.* at 32; PGL Ex. 3.0R at 3. Peoples Gas' bill impact analysis showed average annual increases over the life of the SMP ranging from 1.6% per year to 2.6% per year. PGL Ex. 1.0R at 32-33.

The Company notes that the AG presented bill impact analyses that depend on alternative methodologies. AG Ex. 2.0R at 38. Specifically, the AG's analyses included gas commodity costs, assumptions about future capital spend and operations and maintenance expense, and rate riders. AG Ex. 2.0R at 21-38. Peoples Gas explains that its SMP bill impact analysis excluded these types of costs for at least three reasons: (1) the scope of this docket is limited to the SMP; (2) such assumptions would inevitably be inaccurate over the long term; and (3) many of the other costs that go into customer rates are not controlled by Peoples Gas, particularly over the long term. PGL Ex. 3.0R at 3-4. AG witness Coppola agreed with this last point, stating that "gas commodity costs and perhaps other cost increases may be outside of PGL's control." AG Ex. 2.0R at 35.

Peoples Gas points out that the AG, citing various sections of the PUA including Sections 1-102 and 8-401, argues that the SMP does not constitute the least-cost means of meeting the utility's service obligations. Peoples Gas explains that the AG misunderstands the PUA's requirement of "least-cost" service. As the Commission has held, least-cost service does not mean the "most simple, basic, and cheapest form" of service. *Commonwealth Edison Co.*, Docket No. 07-0566, Order at 137 (Sept. 10, 2008). Least-cost service also does not mean providing service at the lowest possible dollar cost. Rather, an examination of whether service is least-cost "involves a comprehensive consideration and balancing of the overall costs and externalities against the benefits." *Am. Transmission Co. of Ill.*, Docket No. 15-0278, Order at 22 (Nov. 12, 2015); *Gernand v. Ill. Comm. Comm'n*, 676 N.E.2d 1384, 1391 (1997). Here, the externalities that must be considered include system safety and disruption of the City streets. Peoples Gas argues that system safety weighs in favor of completing the work quickly, and focusing

work on neighborhoods minimizes repeated disruption of the same streets that would occur under the AG's proffered approach to system modernization.

2. AG's Position

The AG notes that the Commission's Initiating and Interim Order in this matter specifically directed that this proceeding consider, *inter alia*, the "cost" of the Company's main replacement program ("MRP"). Initiating and Interim Order at 5. The Initiating and Interim Order further established that the proceeding "shall address, at a minimum, the specific questions/issues which Staff developed based upon stakeholder input in the May 31, 2016 report." *Id.*

The AG believes the questions first posed in the May 31, 2016 Staff Report and later adopted by the Commission should be addressed in this proceeding. The AG respectfully urges the Commission to carefully consider each of these issues as it reaches determinations in this proceeding regarding Peoples Gas' main replacement program in order to ensure the affordability of essential gas distribution service.

The AG observes that, as Peoples Gas witness Hesselbach stated during cross-examination, a long-term cost forecast is helpful when setting a target end date to establish the annual pace of work under this program. Tr. at 137. Moreover, a target end date will set the annual amount of capital expenditures in future years. *Id.* at 141. The AG also emphasizes that Peoples Gas witness Egelhoff affirmed that the Company can control the pace and investment of what it calls the Full SMP. *Id.* at 113. Thus, depending on what the Commission determines to be an appropriate schedule subject to safety and reliability requirements, the Company will be able to adjust the pace of main replacement work accordingly. The AG asserts that as the Commission considers long-term cost and rate issues, it should not hesitate to direct the Company to adopt investment programs or schedules that may differ significantly from what the Company has proposed. The AG notes that, according to Mr. Hesselbach, the Company's proposed end date of 2035 to 2040 is not based on any independent study or engineering analysis and should receive no deference in light of the serious cost and affordability issues identified below. *Id.* at 163.

The AG states that the Findings and Intent section in Article I of the PUA clearly indicates the General Assembly's goal that utility regulation shall make the rates for utility service affordable, thus preserving the availability of such services to all citizens. 220 ILCS 5/1-102(d)(viii). The AG further observes that the General Assembly also emphasized its goal of assuring affordable natural gas service in Sections 4-304, 5-111, and 19-130 of the PUA. The AG states that, in light of this statutory goal and the related question in the May 31, 2016 Staff Report, the Commission must consider carefully whether the Company's main replacement and system modernization plans are destined to result in affordable natural gas service for the people of Chicago. The AG also notes that in addition to the General Assembly's emphasis on service affordability, it has also emphasized the related but distinct requirement that utility services be provided at least cost. See Sections 1-102, 7-102, 8-102, 8-401, and 8-406 of the PUA. The AG argues that the Commission should consider carefully whether the various parties' proposals for scope and schedule of the MRP satisfy this exacting requirement. According to the AG, proposals that unnecessarily increase the net present value ("NPV") of cost for replacing

Peoples Gas' distribution pipeline system should attract the Commission's skepticism and cannot be deemed to "constitute the least-cost means of meeting the utility's service obligations." 220 ILCS 5/8-104.

The AG explains that pursuant to Section 9-220.3 of the PUA and Part 556 of the Commission's Rules, Peoples Gas generally recovers a return of and on its SMP investment costs through the monthly Rider QIP that forms part of customers' delivery service bills. The AG states that while this statutory provision also authorizes similar riders for other natural gas utilities in Illinois, Peoples Gas' particular rider provisions were approved by the Commission in Docket No. 13-0534. The AG states that Peoples Gas' Rider QIP covers investment including, inter alia, the retirement and replacement of underground pipe of certain materials; the relocation of meters from inside facilities to outside; and the upgrading of a distribution system from low pressure to medium pressure, including installation of high-pressure facilities.

The AG states that Section 9-220.3(g) of the PUA sets certain maximum limits on Rider QIP recoveries: the annual surcharges billed under the rider, measured as a percentage of delivery base rate revenues set in the most recent general rate order, shall not exceed an annual average of 4%, and shall not exceed 5.5% in any given year. The AG points out that this calculation is reset each time a new general rate order is issued, and the QIP plant previously treated as subject to rider recovery is moved into base delivery rates. Tr. at 112.

The AG observes that, additionally, the General Assembly made clear its intentions for permitting these surcharges when it declared that projects that are financed through the rider should be prioritized based on public safety and reliability as set forth below:

(d) A natural gas utility that has in effect a natural gas surcharge tariff pursuant to this Section shall:

(1) recognize that the General Assembly identifies improved public safety and reliability of natural gas facilities as the cornerstone upon which this Section is designed, and qualifying projects should be encouraged, selected, and prioritized based on these factors. 220 ILCS 5/9-220.3(d).

The AG argues that Peoples Gas' testimony in this case makes clear that the Company's yardstick for setting its Proposed SMP budgets, however, is not tied to safety and reliability needs and legislative goals, but rather maximizing its parent company's shareholder value through increasing capital investments and maximizing its rate base. See, e.g., AG Ex. 2.0R at 31-32; AG Ex. 2.4. As AG witness Coppola testified, a key driver of Peoples Gas' parent company, WEC's, long term earnings growth rate is \$8.0 - \$8.5 billion of projected capital expenditures from 2016 to 2020 to increase rate base, including \$2.2 billion in Illinois. *Id.* at 31; AG Ex. 2.4 at 5. The AG notes that Staff witness Beyer likewise observed this phenomenon, noting that "Rider QIP and rate case are merely cost-recovery mechanisms, and assurance is needed that a cost-recovery mechanism neither directs nor constrains SMP planning and design." Staff Ex. 3.0 at 5.

The AG claims that the record shows that setting SMP budgets based on a statutory spending cap in Section 9-220.3 of the PUA has severe rate consequences

rather than moderating consequences, as Peoples Gas argues. Mr. Coppola observed that a 4% average annual increase in rates solely for the SMP translates to a cumulative increase of 100% over 25 years, or a doubling in customer rates, assuming Peoples Gas does not file new general rate cases. The AG notes that, of course, if Peoples Gas files for base rate increases at its discretion during that time, there is no defined cap on the amount of QIP investment that can be incorporated into test-year rate base in a general rate case, other than a general prudence standard. AG Ex. 2.0R at 27. Moreover, each time the Commission issues a new general rate order, the Section 9-220.3(g) QIP surcharge cap is reset to zero, so that the following year can see a QIP surcharge equal to 4% of the new, higher base delivery service revenue level and a commensurate infrastructure spending increase. The AG observes that if Peoples Gas filed annual general rate cases, the cumulative effect of annual 4% increases over 25 years – compounded geometrically – could reach 167% or nearly a tripling of customer rates (before even considering potential increases in other delivery and supply bill components). *Id.* at 28. For all these reasons, argues the AG, the operation of the Section 9-220.3(g) QIP surcharge cap does very little to moderate SMP-related rate increases.

The AG avers that while the Section 9-220.3(g) limitations on the rider act to set a maximum level of Rider QIP collections each year, they do not set a minimum level of recovery or prohibit the Commission from setting lower caps in light of the PUA's other directives. The AG urges that the Commission acknowledge that affordability and cost-minimization concerns support setting SMP investment levels that result in recovery levels below the Section 9-220.3(g) limits.

The AG claims that, serving an urban customer base, Peoples Gas has unique customer challenges that it must address in order to maintain affordable service. The AG notes that Mr. Coppola presented evidence showing that 34% of Peoples Gas customers live below 150 percent of federal poverty limits, where the poverty limit for a family of four is \$24,300. AG Ex. 2.10 at 2. Furthermore, 349,000 households in Chicago earn under \$30,000 annually, and of these, 115,000 earn under \$10,000. *Id.* at 3. The median household income of Chicagoans is around \$47,000. *Id.* at 3.

The AG also observes that during the very cold 2013-14 winter in northern Illinois, 230,000 Peoples Gas accounts received disconnection notices for non-payment and 77,000 accounts were in fact disconnected. The AG notes that 78,000 accounts entered into deferred payment agreements with the Company that winter pursuant to Section 280.135 of the Commission's Rules. 83 Ill. Adm. Code 280.135(a)(1)(A). For context, Peoples Gas has 661,000 residential heating customers. AG Ex. 2.0R at 50. The AG argues that it appears that maintaining affordability is already a significant challenge for the Company, and the program Peoples Gas has labeled as the AMRP is only six years old.

The AG states that an examination of the Company's rates and revenues renders these disconnection findings of little surprise. The AG observes that Peoples Gas already has the highest customer charge and volumetric charge in the State of Illinois for residential heating customers compared to other gas delivery utilities, at \$30.20 and \$0.19477 per therm, respectively. AG Ex. 2.11 at 1. The AG claims that Peoples Gas

customers have endured five gas delivery rate increases over the past eight years, giving the Company a cumulative 73.8% increase in base revenues. *Id.* at 2. The AG avers that Chicagoans are largely not affluent, and many struggle to remain in the middle class. The AG urges the Commission to consider this demographic reality when assessing the Company's plans for replacing its pipes.

The AG continues that Peoples Gas' projections for the long-term cost of the SMP have increased from \$2.63 billion in 2009, to \$4.45 billion in 2012, to \$6.83 billion or \$7.81 billion (depending on whether the program's targeted end date is 2030 or 2040) in 2014. Of crucial importance is that the Burns & McDonnell cost estimates underlying the 2030 and 2040 cases in Mr. Hesselbach's direct testimony do not include non-MRP projects that can still be recovered within Rider QIP. PGL Ex. 1.0R at 32. The three-year plan cost projections embodied in the table in Mr. Hesselbach's direct testimony contain the rate impacts of all Rider QIP investment. As the scope of this proceeding relates to the System Modernization Program, the Commission must consider the long-term rate impacts of all proposed SMP-related work. AG Ex. 2.0R at 26. While the Company suggested in its direct testimony (following the projections of its consultant, Burns & McDonnell, originally developed for the Company's November 30, 2015 filing in Docket No. 14-0496) that the AMRP would cost \$6.83 billion (if completed in 2030) or \$7.81 billion (if completed in 2040), Mr. Coppola testified that these "New Management Target Case" projections are likely too rosy, relying on several untested assumptions of cost savings. The AG observes that Mr. Coppola also found the more conservative "Contingency Case" projections to also be poorly supported. Specifically, Mr. Coppola found little to no evidentiary support for the Contingency Case savings assumptions embodied in the Burns & McDonnell report, which together add to a long-term cost savings, compared to the "Pre-Acquisition Path" of cost structures as they stood in 2015, of \$1.22 billion (for a 2030 end date) or \$1.25 billion (for 2040). AG Ex. 2.0R at 13.

The AG claims that Mr. Coppola found that the cost-saving assumptions in the Contingency Case could be "within reach" but need to be validated by a couple years of actual experience. *Id.* at 21. The AG further notes that, looking at the loftier New Management Target Case assumptions of cost savings, Mr. Coppola found that the more aggressive percentages in the above four factors, plus two new savings items – 14% Efficiency in Contractor Labor and 7.5% Contingency Cost Reserve Rate – again had minimal to little evidentiary support. *Id.* at 18. Mr. Coppola concluded that these assumptions are "unsupported or contradictory," "unrealistic," and "fantastical" – and should not form the basis of any plan approved by the Commission. *Id.* at 21.

The AG notes that ultimately, Mr. Coppola determined that the most likely cost outcome for the program is based on Burns & McDonnell's "Pre-Acquisition Path" cost case, wherein completing the program by 2030 would cost \$9.41 billion or \$10.96 billion by 2040. *Id.* at 6, 19 - 20. The AG observes that these estimates also match a probabilistic estimate completed by Jacobs Engineering Group for the Company in early 2015. *Id.* at 20; AG Ex. 2.2 (CONF).

The AG states that because the assets associated with the MRP generally have depreciable lives of around 30 years, related rate impacts will continue for 30 years after the end of the program. *Id.* at 24, fn. 24. The AG claims that whether through Rider QIP

or general delivery rates, the return of and on SMP investment will accumulate with each new year of the program, so that rate impacts felt by a customer will steadily increase each year until the final year of work, and then, following that year, the annual rate impacts will decrease as older assets fall out of recovery. The AG claims that, according to Mr. Coppola's analysis, under the Company's best-case scenario – the New Management Target Case – the annual MRP-related charge to a residential heating customer would peak at around \$580 in 2030, and the customer would pay around \$14,500 for the SMP over the life of the program. *Id.* at 24. Alternatively, for the 2040 version of the New Management Target Case, the SMP-related charge to a residential heating customer would be \$365 in 2030, though it would reach a peak in 2040. *Id.* at 26.

The AG notes that Mr. Coppola found that the more realistic cost scenario advanced by Peoples Gas – the Pre-Acquisition Path Case – would entail annual rate impact to a residential customer peaking at \$782 in 2030, and total SMP-related charges paid over the life of the program reaching around \$18,500. *Id.* at 33. The AG also points out that Mr. Coppola found that, based on his realistic assumptions about the future path of gas commodity prices and general delivery service base rates, the annual Peoples Gas total bill for an average residential heating customer will more than double to \$2,236 by 2030, from \$1,085 today. AG Ex. 2.0R at 35.

The AG states that if the Pre-Acquisition Path Case cost projections for 2040 were used instead, the annual charge to a residential heating customer would peak at a similar level but much later in time – \$790 around 2040. *Id.* at 37. Commensurately, the NPV of total capital expenditures would be around 20% lower with a 2040 completion date – illustrating that achieving least-cost service under Section 8-401 generally involves deferring replacement until absolutely needed for safety. For all NPV calculations, Mr. Coppola used 9.61%, Peoples Gas' pre-tax cost of capital used in its own revenue requirement calculations. AG Ex. 2.0R at 42, fn. 41; *Id.* at 36.

Alternatively, the AG states, the Commission can consider Peoples Gas' own rate impact calculations, which (using the unrealistically optimistic New Management Target Case) forecast that a residential heating customer's average monthly bill will increase, on average, by \$2.78 year-on-year each year until the end of the program for a 2030 end date, or by \$1.67 year-on-year each year for a 2040 end date. The AG states that these figures translate to a \$33.40 year-on-year increase in the annual bill, repeating every year, for a 2030 end date, or an increase of \$20.00 annually for a 2040 end date. PGL Ex. 3.0R at 3; AG Cross Ex. 6; Tr. at 106. The AG adds that under the \$33.40 scenario, by the tenth year, the SMP-related charge on a residential heating customer's gas bill would be \$334, and by the twentieth year, the charge would be \$668. Tr. at 107. The AG notes that these are unlikely to be the only increases in the gas bill over those time periods; as Ms. Egelhoff admitted, there are several other elements in the total bill that ratepayers are responsible for. *Id.* at 108. For example, as the AG observes, Mr. Coppola gave unrebutted testimony forecasting that "[t]he combination of tightening supply and increasing demand will put upward pressure on natural gas [commodity] prices. The AG claims that potentially higher gas prices in coming years will exacerbate customers' gas bills that are increasing because of AMRP investments." AG Ex. 2.0R at 44.

The AG argues that these figures should also be compared against the aforementioned deep and severe poverty in the City of Chicago. As stated above, 349,000 households in Chicago earn below 30,000 annually, while Peoples Gas is proposing a program that, if allowed to go forward at its present pace, will eventually ask residential heating customers at this income level to pay over 2% (over \$700) of their annual salary just for the MRP, on top of the remaining parts of the natural gas bill. The AG argues that questions of what program pace the Commission should authorize in this proceeding are thus inextricably tied to questions of cost and affordability.

The AG points out that Mr. Coppola also presented an unrebutted affordability benchmark in his direct testimony, drawing on work of Fisher, Sheehan & Colton (“FSC”), an energy economics research firm based in Massachusetts. The AG states that FSC determined, using U.S. Department of Energy data and other inputs, that the “affordable burden” for home heating and cooling bills is 2% of gross household income; moreover, the affordability level for gas heating alone is 85% of this, or 1.7% of gross household income. AG Ex. 2.0R at 49. According to the AG, this translates to a level of \$854 for the median Chicago household, whereas, as discussed above, the average Peoples Gas residential heating customer’s annual total bill is already \$1,085. AG Ex. 2.0R at 49. The AG notes that a Chicago household earning \$30,000 annually would have an affordability threshold of just \$510. *Id.* at 50. The AG said that by 2030, the total natural gas bill for an average residential heating customer would be over \$2,200. The AG claims that while household incomes might increase over that time span, no assumption of household income growth was advanced in this proceeding other than Mr. Coppola’s assumption of 2.5% annual income growth, which would increase incomes by only around 45% over 15 years – nowhere close enough to bring the gas heating affordability threshold for a median-income Chicago household up to \$2,200. *Id.* at 48. In short, the AG argues that Peoples Gas’ proposals are not affordable for Chicagoans.

The AG states that as a more affordable alternative to the Company’s very expensive proposal, Mr. Coppola, a former financial executive with two major natural gas utilities, recommended that Peoples Gas spend \$130 million of capital expenditure each year on its MRP, which is the same level of average annual expenditure it originally forecasted for the MRP when it approached the Commission for approval of an accelerated program in 2009. AG Ex. 2.0R at 39.

The AG states that Mr. Coppola constructed his alternative capital spending model by starting with Burns & McDonnell’s projected long-term cost of \$9.69 billion under its 2040 Contingency Case, which includes a moderate amount of cost savings assumptions. See Tr. at 414. The AG notes that, assuming 3% annual inflation in capital costs, and beginning with \$130 million of capital work in 2016, Mr. Coppola forecast that the total work would be complete by 2053 under this approach. See AG Exhibit 2.8. The AG claims that the annual MRP-related charges to residential heating customers under this approach would be far less stark than under the Company’s 2030 or 2040 proposals presented in Mr. Hesselbach’s direct testimony.

The AG claims that Mr. Coppola’s analysis also showed that this \$130 Million Capital Budget Case would result in an average residential heating customer making a NPV of MRP-related payments of \$2,484 over the life of the program, compared to NPVs

of \$4,574 and \$3,741 for the 2030 and 2040 Pre-Acquisition Path cases, respectively. AG Ex. 2.0R at 42- 43. The AG submits that the Burns & McDonnell assumption of escalation or inflation over time of construction cost is salient, with relatively low escalation rates ranging from approximately 1.5% to 5%. AG Cross-Ex. 5 at 2. The AG argues that the Commission's Section 8-401 obligation to direct least-cost service must look to longer completion timelines than what the Company has proposed. AG Ex. 2.0R at 43.

The AG states that, as Mr. Coppola observed, Peoples Gas has presented no information in this proceeding demonstrating why extending the program completion date past 2050 for main segments less prone to failure would present unmanageable safety risks. *Id.* at 41. The AG claims that Mr. Coppola's proposal should be viewed as consistent with AG witness Neale's proposal that the Commission direct Peoples Gas to prioritize its mains, service lines, and meter move-out program in order to replace the riskiest segments first. *Id.* at 51. To the extent that proven safety concerns dictated a more rapid pace of infrastructure work than Mr. Coppola's proposal suggests, the AG would not object to such deviations, but the assumption should be that the Company will spend within the limits it originally agreed to abide by when it first brought the notion of an accelerated main replacement to the Commission's attention over seven years ago.

The AG argues that even if only for the next three years, there is no reason for the Commission to herein authorize a program pace that is inconsistent with the PUA's requirement of least-cost service and the goal of affordability if a slower program pace consistent with safe and reliable service is available. The AG points out that, as Mr. Coppola stated, this proceeding, not annual Rider QIP reconciliations, is the best vehicle for the Commission to examine the long-term financial effect of the MRP's scope. AG Ex. 2.0R at 31. The AG avers that while Mr. Hesselbach stated in his direct testimony that Section 9-220.3 and the Commission's Rider QIP rules at Part 556 "provide several means for the Commission to monitor the accuracy and prudence of SMP costs," including the prudence review under annual rider collection reconciliation proceedings, none of those legal constraints points attention to the long-term arc of the program, with its crucial implications for cost and affordability. PGL Ex. 1.0R at 30. The AG adds that it is not possible to question the long-term investment plan within one year's reconciliation docket, which looks merely at the prudence of a single year's investments from a retrospective basis. 220 ILCS 5/9-220.3(e)(2). The AG states that were the Commission to decline to address affordability on the grounds that this docket considers only three years of investment plans, it could set a precedent allowing the Company to continue seeking approval of "rolling three-year plans" while the Commission continually ignores affordability issues as the Company's rate recovery rights continue to accumulate, year after year.

The AG asks that the Commission exercise its authority to arrest a problem that has accelerated beyond the Company's ability to manage it or Chicagoans' ability to bear the costs. The AG urges the Commission to direct the Company to adopt Mr. Coppola's \$130 Million Capital Budget Case as the organizing principle of its main replacement activity going forward.

3. Staff's Position

Staff acknowledges that the SMP's cost will affect customer rates, and believes affordability must be studied and considered as the program continues. Staff Ex. 3.0 at 10. Staff submits that despite the parties' testimony submitted in this docket, the workshop discussions of rates and affordability, and the intent to review those topics in this docket as indicated in the May 31, 2016 Staff Report, customer rate impacts have not been and cannot be adequately reviewed in this docket. *Id.*; Tr. at 338. Staff initially envisioned working with all parties to develop a plan and schedule for the subsequent review of rate impacts and affordability. Tr. at 337. Staff recommended the Commission consider rate impacts and affordability in a workshop or series of workshops convened following the conclusion of this docket in order to focus specifically on this issue. It is Staff's opinion that the subsequent process will allow for a more thorough review of those important issues than is possible in this docket. Staff Ex. 3.0 at 10; Tr. at 339-40. Further, Staff foresees opportunities to consider subsequent rate impact and affordability findings during future reviews of the multi-year system modernization program. Tr. at 345-46. Staff's recommendation in this issue changed in Phase II of the proceeding. See Section IX. A.2, below.

Staff points out that the AG argues that the Commission can and should limit Peoples Gas' Rider QIP recovery to a level lower than that specifically provided for in Section 9-220.3(d)(3) and (g) of the PUA. Staff contends that the AG is wrong, as a review of the plain text of Section 9-220.3 and the rules of statutory construction clearly define what a utility can recover under a QIP rider. Staff asserts that Section 9-220.3 provides that a gas utility serving more than 700,000 customers "may file a tariff for a [QIP] surcharge[.]" 220 ILCS 5/9-220.3(a)(1). Further, the Commission "shall issue an order approving, or approving with modification to ensure compliance with this Section, the tariff [filed by the gas utility] no later than 120 days" after the utility files its tariff. 220 ILCS 5/9-220.3(a)(3). Significantly, in Staff's view, the statute does not authorize the Commission to refuse to approve such a tariff outright.

Staff further notes that Section 9-220.3(b) enumerates investments that are QIP within the meaning of the statute, including: replacement of pipes fabricated from cast iron, wrought iron, ductile iron, unprotected coated steel, unprotected bare steel or mechanically coupled steel; relocation of meters outside customer facilities; upgrading of facilities from low to medium pressure; replacement of high-risk high-pressure transmission facilities; replacing difficult to locate facilities; and installation or replacement of transmission and distribution regulator stations, regulators, valves, and associated facilities. 220 ILCS 5/9-220(b)(1)–(3), (5)–(7). Further, Section 9-220.3(c) identifies certain costs and expenses that are explicitly excluded from QIP recovery. 220 ILCS 5/9-220.3(c).

Staff continues that Section 9-220.3(d) provides that "[a] natural gas utility can recover the costs of qualifying infrastructure investments through an approved surcharge tariff from the beginning of each calendar year subject to the reconciliation [provided for by law]." 220 ILCS 5/9-220.3(d)(3)(emphasis added). Section 9-220.3(e) provides for yearly reconciliations of amounts collected under a utility's QIP tariff. In the course of any such reconciliation, the Commission "may make adjustments to ensure that the limits

defined in ... paragraph [d] are not exceeded.” 220 ILCS 5/9-220.3(d)(3). Staff likewise notes that Section 9-220.3(g) provides in relevant part that “[t]he cumulative amount of increases billed under the [QIP] surcharge ... shall not exceed an annual average 4% of the utility’s delivery base rate revenues, but shall not exceed 5.5% in any given year.” 220 ILCS 5/9-220.3(g)

According to Staff, nothing in the statute authorizes the Commission to make adjustments to cost recovery other than those authorized in reconciliation proceedings. *See generally*, 220 ILCS 5/9-220.3. More specifically, nothing in the statute authorizes the Commission to limit recovery based on unspecified “affordability” criteria, as advocated by the AG; indeed, the words “affordable” and “affordability” are entirely absent from Section 9-220.3.

Staff avers that the AG urges the Commission to find that Peoples Gas has not “recognize[d]” legislative intent regarding how the Company “should” (but need not) prioritize QIP investment, and to direct the Company to recover less money under Rider QIP than is specifically authorized by statute, based upon authority found nowhere in the statute. According to Staff, this argument contravenes the rules of statutory construction, since it urges the Commission to read one portion of Section 9-220.3 in a manner that renders several others essentially null and void. In addition, Staff asserts that the AG is essentially asking the Commission to violate the long-held proposition that an administrative agency has only those powers conferred on it by statute. *See Sheffler v. Commonwealth Edison Co.*, 399 Ill. App. 3d 51, 60 (1st Dist. 2010) (Commission derives its power and authority solely from the statute creating it, and may not, by its own acts, extend its jurisdiction).

Staff argues that the statute, read as a whole, authorizes gas utilities to recover through a QIP tariff, subject to reconciliation, costs associated with the installation of certain enumerated categories of investment, provided that such cost recovery does not exceed statutorily-defined amounts. Staff sees nothing in the statute which authorizes the Commission to find that the statutorily-defined limits on recovery are excessive, or to reduce them. Thus, according to Staff, the AG’s argument therefore fails, since it urges the Commission – contrary to the rules of statutory construction – to read into Section 9-220.3 a limitation that simply does not exist in the statute. *See Toys “R” Us v. Adelman*, 215 Ill. App. 3d 561, 568 (3d Dist. 1991) (a court must construe a statute as it is, and may not supply omissions, remedy defects, or add exceptions and limitations to the statute’s application, regardless of its opinion regarding the desirability of the results of the statute’s operation).

Staff next points out the infirmity of the AG’s argument that Section 9-220.3 cannot be read to establish what the General Assembly considers affordable. The AG argues that, “where the General Assembly intends a statutory rate cap to serve its goal of affordability, it makes that expressly clear.” According to Staff, the AG appears to advance this argument on the theory that, if Section 9-220.3 is not a legislatively-imposed cap on rate increases, it somehow does not constitute a conclusive resolution by the General Assembly of what level of rate increases are permitted as a matter of law.

Staff states that, assuming for the sake of argument that the AG’s theory has merit, its central premise is not supported by the statute. Section 9-220.3(g) provides in relevant

part that “[t]he cumulative amount of increases billed under the [QIP] surcharge, since the utility’s most recent delivery service rate order, shall not exceed an annual average 4% of the utility’s delivery base rate revenues, but shall not exceed 5.5% in any given year.” 220 ILCS 5/9-220.3(g). Accordingly, such increases absolutely may, as a matter of law, be equal to an annual average 4% increase in revenues, or a 5.5% increase in a given year. Staff states that in other words, the AG is compelled to argue that a statute which caps rate increases at a specified percentage of base revenues is not a rate cap stating legislative intent regarding affordability, which in Staff’s view is not credible.

According to Staff, the General Assembly thought that it was imposing a rate cap on Rider QIP recovery to safeguard customers by including Section 9-220.3(g), and should be presumed to have intended what its members publicly said that it intended, which was clearly not the conclusion that the AG now advances.

In summary, Staff urges the Commission to reject the AG’s argument that the Commission can and should limit Peoples Gas’ recovery under Rider QIP to levels below those authorized by statute. The AG’s argument is contrary to the plain language of the statute, the rules of statutory construction, legislative intent, and a Commission-approved tariff.

4. City’s Position

The City states that it is concerned about the cost of Peoples Gas’ SMP program, and the resulting impact on the affordability of gas utility service for economically vulnerable City residents. See AG Ex. 2.0R at 6-7. The City notes that AG witness Coppola presented an extended summary discussion of affordability concerns. Additionally, the Staff Report includes the AG’s full workshop presentation of economic data and potential rate burdens on Chicago residents. *Id.* at 6-7, 22 and 46-47 (and referenced exhibits); Staff Report, App. K and L.

5. Phase II

- a. What is the impact on the average annual residential customer bill (both current and net present value) and program duration of the Company's plan and any alternative plan under a 3.5%, 2.5%, 2.0%, and 1.5% annual escalation in spend?**

(i) Peoples Gas’ Position

Peoples Gas explains that the Commission’s Order initiating Phase II directed the Company to calculate the bill impacts and effect on program duration under four scenarios concerning increased SMP spending. Calculation of these values was provided in PGL Ex. 5.4. As one would expect, increasing spending would result in the SMP costing more in the early years while reducing the overall cost of the project, and earlier completion of the SMP. PGL Ex. 5.4. However, it is important to note that Peoples Gas does not plan to increase spending by these amounts, and no other party has advocated for such spending escalation to be adopted. See, e.g., PGL Ex. 7.0 at 18; Staff Ex. 6.0 at 3; AG Ex. 4.0 at 29.

(ii) Staff's Position

Staff clarifies several items regarding the Company's analysis. First, Staff notes that the source of the Company's analysis is the B&M model that was reported to the Commission on November 30, 2015, as Compliance Filing #5 in Docket No. 14-0496. The Company provided a corrected model in response to data request AG 3.04 to determine the \$7.780 billion total program cost with program year end date of 2040 in PGL Exhibit 5.4. Staff Ex. 6.0 at 3.

Next, Staff notes that the Company stated PGL Exhibit 5.4 represents the effect on capital costs and residential customer bills for 1.5%, 2.0%, 2.5% and 3.5% annual escalation scenarios, although none of these represent Peoples Gas' "plans" in the sense that the Company does not intend to implement the various escalation scenarios. Staff also clarifies that the AG's approach to the SMP is not represented on PGL Exhibit 5.4. Finally, Staff clarified that PGL Exhibit 5.4 does not show the present value of the revenue requirement in the year-over-year comparison. The Company provided this information in discovery but stated it does not add value since the discount factor causes the annual impact to become less significant over time and eventually the year-over-year impact becomes negative. *Id.* at 3-4.

Staff also provides Schedule 6.01, which includes all amounts from PGL Exhibit 5.4 and adds line 11, which presents the cumulative impact of the increases from 2015 through each scenario's end date. *Id.* at 2. Staff explained that it included the cumulative rate impact to the end dates of the program on Schedule 6.01 since the Commission's Reopening Order in the instant proceeding requested rate impacts through "program duration." Reopening Order at 2.g. Staff interpreted "program duration" in this context to mean through the end of the SMP construction program, rather than through the end of the useful life of the last plant installed at the end of the construction program, i.e., the program lifetime. Peoples Gas did present cumulative costs over the construction program lifetime in PGL Exhibit 9.0, page 7. AG Cross Ex. 23.

The AG correctly noted that, while consideration of an acceleration in spending was requested in the Commission's Reopening Order, neither the Company nor the AG are proposing an acceleration of spending. AG Ex. 4.0 at 29.

(iii) AG's Position

The AG states that it is unclear as to the import of this request. As noted by Mr. Coppola, no party is recommending that spending be escalated as posed in the question. AG Ex. 4.0 at 29.

The AG notes that Mr. Coppola testified that Peoples Gas complied with the Commission's request, setting forth its analysis in PGL Exhibit 5.4. Mr. Coppola criticized PGL's rate impact analysis of the scenarios posed by the Commission because the utility, as it did in the first phase of the case, did not consider the cumulative impact of the SMP spending over the next 20 to 30 years. Doing so is misleading, as it masks the true rate impacts of the Company's capital investments. PGL's analysis shows monthly rate increases of "\$1.75 to \$2.32 per month and \$21.00 to \$27.80 per year. The testimony and exhibit also imply a relatively innocuous average annual increase of 1.7% to 2.2% depending on the timeframe presented." *Id.* at 30, *citing* PGL Ex. 5.4.

The AG explains that the figures in PGL Exhibit 5.4 do not consider the cumulative impact of spending on the program over the next 20 to 30 years. With a long-term program like the AMRP, the numbers presented by PGL in Exhibit 5.4 seriously understate the real impact on customer bills over time. *Id.* at 30. AG witness Coppola presented the cumulative impact of spending on the average annual residential heating customer bill at specific points in time employing PGL's flawed Base Case scenario, and also at the peak level of the program and in total over the lifetime of the AMRP both on a nominal dollar basis (costs as incurred) and a present value basis (the current worth of a future sum of money or stream of cash flows given a specified rate of return). AG Ex. 4.0 at 31. Note that the average residential customer was already paying more than \$78 for the AMRP in 2015. Under the Company's assumed Exhibit 5.4 Base Case, this cost doubles by the year 2020 and increases gradually until reaching a peak amount of more than \$602 in the year 2040 – the end of the construction phase of the program under PGL's proposed plan.

The AG asserts that the customer bill impact does not end there, as there will still be billions of dollars of capital costs to depreciate from the rate base on which the Company will earn a return. For example, the rate base costs for the AMRP will not be fully depreciated until the year 2073. Therefore, over the lifetime of the AMRP, including both the construction and cost recovery phases of the program, Mr. Coppola calculated that the average residential heating customer will pay \$16,711 for his or her share of the AMRP investment. On a present value basis discounted at the Company's overall cost of capital of 9.61%, those bill payments total to \$3,175 in today's dollars. *Id.* at 31-32. Mr. Coppola's bill impact exhibit more accurately shows that in three years or 2020, the average residential heating customer will pay in excess of \$202 for SMP/AMRP if the Company's proposed Three-Year SMP Plan is implemented. That amount will continue to grow over the following years to reach \$785 at its peak point in 2040. AG Ex. 4.0 at 34.

The AG states that unlike Peoples Gas, Mr. Coppola analyzed the cumulative rate impact of proposed SMP expenditures. The cumulative impact is the true effect that proposed SMP spending levels will have on rates. Mr. Coppola included a table at page 31 of his direct testimony on re-opening showing the rate impacts of the scenarios posed by the Commission at specific points in time, at the program's peak level, and total bill impacts in both real and nominal dollars.

The AG observes that Peoples Gas' calculations in its Exhibit 5.4 are also misleading because the Company used capital expenditure levels that are significantly below the numbers it included in its proposed Three-Year Plan and what it spent in 2016 and 2017. Whereas PGL's Exhibit 5.4 shows "capital expenditures of \$132.3 million for 2016, \$144.4 million for 2017, \$152.9 million for 2018, \$161.9 million for 2019, and \$171.1 million for 2020 ... the Company's testimony, exhibits, and response to data requests in this second phase of the case ... indicate that it has spent or projects to spend on the SMP/AMRP the following amounts: \$192 million, \$301.5 million, \$300 million, \$305 million, and \$304 million for each year 2016 to 2020, respectively." *Id.* at 32-33. As a result, the numbers included in PGL Exhibit 5.4 are seriously erroneous and misleading.

The AG adds that the Company's bill impact projections shown on its Exhibit 5.4 are based on its total long-term program cost estimate of \$7.78 billion, which is derived (Tr. at 102; PGL Ex. 5.2 at 40, n. 23) from the November 30, 2015 Burns & McDonnell Report. The Burns & McDonnell Report's cost projections depend crucially on certain "New Management Target Case" savings assumptions in six discrete cost categories, which were based on PGL's own estimates in 2015 of future savings. PGL, however, now maintains that it is not even making an effort to track whether it is realizing any savings in the Burns & McDonnell cost savings categories. AG Ex. 4.0 at 33, footnote 25. Without those savings realized, the "Pre-Acquisition Path" long-term cost projection of \$10.96 billion becomes much more likely. *Id.* at 33-34.

The AG states that another flaw in PGL's rate impact analysis is that it *averages* the annual percent impact of the AMRP costs on customer bills over the term of the program for its assumed Base Case and each of the alternative escalation scenarios. This approach, as explained by Mr. Coppola, averages the low cost in the early years of the program with the higher cost in the later years as the program costs continue to accumulate. If this were a one-year, short-term project with a one-time capital expenditure, then such calculations and presentation would make sense. But that is not the case here. *Id.* at 30-31.

The AG states that Mr. Coppola recalculated the bill impacts shown in PGL Exhibit 5.4 using the higher capital expenditure levels included in PGL Ex. 5.3. Those results are shown in the last column in Table C shown at page 31 of his direct testimony on re-opening. *Id.* at 31-34.

The AG adds that Mr. Coppola analyzed his recommendation that SMP spending be limited to \$130 million escalated at 3% annually under the four escalation scenarios included in the Commission's questions. *Id.* at 34-35. The AG concludes that Peoples Gas' proposal to spend \$300 million annually on the SMP exacerbates rate impacts for customers.

The AG argues that each of the accelerated spending scenarios requested in the Commission's March 1st Order makes the situation worse over the next 15 years and in present value terms for the average residential heating customer, with only a marginal reduction in the completion time of the program. The Company stated that it has no plans to implement the various escalation scenarios that the Commission directed the Company to perform. AG Ex. 4.5. Rather than escalating the capital program as suggested in the Commission's question, the Commission should adopt Mr. Coppola's recommendation to scale down the Company's proposed Three-Year Plan needs to be scaled down to a more reasonable \$130 million level adjusted annually for future cost inflation. In the alternative, the Commission should adopt Mr. Coppola's recommendation that Peoples Gas's SMP capital spend be limited to \$157 annually.

(iv) City's Position

The City observes that although affordability of essential gas utility service has been a stakeholder concern, it has become a more serious issue, as the scope and seriousness of the SMP's affordability problem have been documented. The issue has

been addressed in increasing detail during this re-opening phase of the formal proceeding, and the record establishes that affordability is a problem that will.

The re-opening record shows that affordability is already a serious problem for Peoples Gas ratepayers, and that the problem will become more severe with SMP implementation – unless the Commission takes action to make affordability a driver in SMP planning. City Ex. 5.0 at 2-5; AG Ex. 5.0 at 6-9, 13, 19, 36, 39. No party disputes that, as SMP implementation proceeds, rates must rise to cover PGL’s planned hundreds of millions in annual SMP investments, and customers’ affordability challenges will worsen. PGL Ex. 13.0 at 3; City Ex. 5.0 at 5; AG Ex. 4.0 at 46; AG Ex. 5.0 at 19, 113-121. PGL claims to have responded to these issues, with increased funding for energy efficiency programs. PGL Ex. 13.0 at 3; PGL Ex. 9.0 at 8. However, the City contends that PGL’s evidence and actions do not sufficiently address the customer side of the equation.

The City argues that affordability reflects a consumer perspective, including assessments of what ratepayers can afford to pay and other circumstances affecting ratepayers, as well as the consequences of unaffordable utility service. PGL consistently discounted consumer-oriented factors in its affordability testimony. Instead, PGL emphasized a utility perspective -- focusing on cost control (including program pace), allowing only company (not consumer) limitations to affect SMP design, and giving effect to a dubious interpretation of the QIP provision that would limit Commission authority. See PGL Ex. 5.0 at 34, 51, PGL Ex. 13.0 at 2, 9; 83 Ill. Adm. Code 556.100; *also see* City Ex. 5.0 at 6. PGL and Staff also discounted, or completely ignored, the adequacy of available bill assistance programs. AG Ex. 8.0 at 31-33; City Ex. 5.0 at 2-3.

The City includes its arguments regarding the QIP provision’s effect on Commission regulatory authority in its discussion of the affordability issues facing Chicago ratepayers, where it believes the Commission’s determination and application of governing law will be most consequential. After reviewing and analyzing the arguments of the parties, as the City understands them, the City notes consensus that the Commission possesses authority to act to protect affordable service, but no consensus on how the Commission should use that authority. The City finds neither the statutory provisions at issue, nor the parties’ legal analyses are clearly in conflict or incompatible. The City concludes that a consensus of parties’ legal analyses, supported by pertinent statutory and case law, confirms adequate Commission authority to incorporate affordability as a driver in its SMP determinations.

The City points to the PUA’s Article IX ratemaking provisions as the source of that authority, arguing that they are not displaced by the QIP statute. One of the Commission’s fundamental ratemaking duties is to determine the prudence and reasonableness of utility investments, costs, and practices that affect rates and to bar those that fail the statutory tests. 220 ILCS 5/9-201, 9-211, 9-220.3(e)(2). Here the Commission must assess the prudence and reasonableness of planned investments and costs that would make utility service unaffordable, when public safety may permit more affordable plans.

The City states that questions about Commission authority arose from the Staff’s and PGL’s arguments, especially if those arguments are broadly construed, that the QIP statute mooted affordability questions and bars Commission action to reduce recovery

below the statutory caps, nullifying those essential regulatory powers in the QIP setting. 220 ILCS 5/9-220.3(g). In fact, the language of the QIP provision confirms the Commission's authority and duty to reconcile PGL's proposed rates with its "actual prudently incurred costs," requiring utility evidence showing "the prudence of the qualifying infrastructure investment". 220 ILCS 5/9-220.3(e)(2) see also, 83 Ill. Adm. Code 556.100(a), 556.100(b). In addition, the QIP provision requires that implementing QIP tariffs be filed under PUA Section 9-201, which codifies the PUA's "just and reasonable" rates requirement. 220 ILCS 5/9-220.3(a), 9-201.

Given their ordinary meaning, as the law requires, the words of the QIP provision do not set a minimum for recovery. That language also does not purport to nullify the Commission's core ratemaking authority, and it cannot be interpreted to do so implicitly. *MCI Telecomm. Corp. v. Ill. Commerce Comm'n*, 168 Ill. App. 3d 1008, 1012 (1st Dist. 1988). Only a clear statement of legislative intent or a manifest inconsistency could accomplish such a fundamental change in basic PUA regulatory mechanisms. *Moore v. Green*, 2006 IL 100029, 219 Ill. 2d 470, 479 (2006) ("For a later enactment to operate as a repeal by implication of an existing statute, there must be such a manifest and total repugnance that the two cannot stand together.") Indeed, the statutory directive "shall not exceed" merely prohibits cost recovery above the cap. It does not require any recovery, and it does not require curtailed Commission authority.

A Commission determination that particular SMP elements or expenditures are imprudent or unreasonable in the prevailing circumstances -- serious affordability concerns-- is an adequate, lawful basis for Commission action to bar improper cost recovery. Commission action to "ensure . . . the rates for utility services are affordable and therefore preserve the availability of such services to all citizens" is an explicit objective of Commission regulation. 220 ILCS 5/1-102(d)(viii).

Staff later acknowledged the Commission's undiminished authority to require just and reasonable rates by enforcing the fundamental prudence and reasonableness requirements of the PUA, and of the QIP provision itself. In fact, Staff recommends that "the Commission makes no determination regarding the prudence, justness, and reasonableness of costs incurred by the Company in carrying out the SMP plan. The Commission should further find that the prudence and justness and reasonableness of costs are to be determined either in Rider QIP reconciliation proceedings or general rate cases." Staff clearly does not maintain that the QIP cap provision is a prohibition on Commission ratemaking determinations that may affect QIP recovery.

According to the City, PGL argues only that the statutory QIP recovery caps cannot be replaced with different ceilings defined by the Commission. PGL's narrow argument does not address Commission actions that do not purport to change the QIP provision caps. PGL's summary of the Commission's authority permits all other ratemaking determinations: "The Rider QIP law allows Peoples Gas to recover its investments in qualifying infrastructure plant through a rider, provided that such investments are *reasonable* and *prudent* and *do not exceed* certain statutory caps." The Commission's distinct Article VIII oversight authority, argued by the AG, supplements the Commission's ratemaking authority. PUA sections 8-501 and 8-503 authorize, respectively, Commission orders that: (a) correct deficiencies in utility service and facilities; or (b)

define the particulars of appropriate utility infrastructure repairs and improvements. The AG argues that the Commission can find that PGL's SMP proposal would not provide "adequate" service, because it would not be affordable; and modify SMP plans to reflect its determination of appropriate facilities repairs and improvements. The City argued that the governing law and the record in this case permit, if not require, Commission findings and actions to address affordability directly. The weight of the substantive arguments from the parties affirms Commission authority to protect the affordability of PGL's gas utility service. That authority is not extinguished by the PUA's QIP provision.

On the evidence, PGL and Staff presented very little evidence on the affordability issues they dismiss, a choice that means the record lacks empirical evidence to support PGL's and Staff's positions. PGL's consideration of affordability in its SMP planning was limited to dollar impact computations presented in an economic vacuum, and its own engineering opinions. See, e.g., PGL Ex. 9 at 7-8. PGL identified bill assistance programs as a solution, but did not assess either their effectiveness or their adequacy. Staff takes an even more dismissive approach, and declared that Staff was "not addressing affordability of the SMP" in its testimony."

While the AG's experts compared affordability for competing SMP proposals, the City found their demographic analyses more important. Many of PGL's Chicago ratepayers already have trouble paying their utility bills. Foreseeable SMP-related affordability problems "are not limited to the "low-income" consumers, but also encompass gas utility "customers with median incomes." PGL Ex. 5.0 at 4. Declining affordability is a real problem that it will worsen, unless the Commission addresses it promptly.

The City's expert, Mr. Gorman concluded (and PGL's rate impact calculations confirm) that the pace of PGL's SMP expenditures (the constancy and duration of the program) has a direct effect on monthly bill impacts and affordability for consumers. City Ex. 5.0 at 4, 7. He found, in addition, that the timing of the resulting bill increases is important, because consumers' ability to pay will change over time, with inflation and wage gains. City Ex. 5.0 at 6. The higher bills SMP will cause can exacerbate not just ratepayers' affordability challenges, but also the public safety risks that accompany a loss of utility service. City Ex. 5.0 at 8. The City noted that affordability problems affect a class of public safety risks -- human health and safety that is distinct from system safety (leaks and other pipe failures), which must be part of any serious consideration of public safety. AG Ex. 5.0 at 38. Finally, Mr. Gorman observed that, despite PGL's refusal to address affordability issues, the Company also would be adversely affected by unaffordable rates. *Id.* at 78.

The City argues that the Commission must respond to these facts of record, using the authority the parties acknowledge and the flexibility defined by informed public safety priorities.

The City argues that the record evidence demonstrating SMP affordability issues, the serious consequences of service affordability problems, and duties imposed by the PUA require Commission action to assess, and to protect as necessary, utility service affordability. City Ex. 5.0 at 1; 5; AG Ex. 5.0 at 6, 9, 13, 19, 36. The City recommends that affordability be explicitly incorporated into PGL's program design and planning,

actively considered in periodic program updates, and tracked over the course of SMP's implementation as SMP impacts increase over time. In the City's words, affordability must be a driver of SMP design, planning, and implementation -- not a by-product. City Ex. 5.0 at 2; AG Ex. 5.0 at 39.

No party questions giving public safety the highest planning priority. The City's expert, Mr. Gorman, testified that affordability (and the risks accompanying unaffordable service) should rank highest in any second tier of priorities. City Ex. 5.0 at 8. Mr. Gorman concluded that the Commission must prioritize affordability above reliability or improved performance in that tier. "System reliability is only a benefit to PGL customers to the extent bills are affordable for the level of service reliability provided." City Ex. 5.0 at 8.

According to the City, Staff suggests a novel distinction between "affordability" and "rate impacts" that removes any ratepayer considerations from its analysis, then proposes additional workshops on rate impacts. Staff Ex. 7.0 at 10. Although the record was re-opened to receive rate impact evidence (Re-Opening Order at 1), Staff also declined to engage on rate impact issues (because "the Commission is not reviewing nor approving any rate increase in this docket[,] and actual customer impacts will depend on the amounts the Company spends"). Staff Ex. 5.0 at 22. In sum, after declaring affordability a dead issue, Staff proposed workshops on central affordability issues (couched as rate impacts), while sometimes arguing that PGL's SMP expenditures are beyond Commission control.

To the City, PGL appeared to contest only the AG's proposal, which PGL read as replacement of the statutory QIP caps. As to the effects on affordability, PGL's view was that "higher early-year bill impacts are, simply put, the price for prudently retiring at-risk main and increasing safety as soon as is practically possible." PGL Ex. 11.0 at 27:545. The City argues that PGL's absolute rejection of SMP adjustments lacks support in the empirical evidence (and in the law).

The City observes that the Commission has authority to take various actions to protect affordability. In the current context, the most useful question the Commission can ask is "How much flexibility is available to the Commission in program design or other regulatory responses, to address affordability issues, while prioritizing public safety?" The answer depends in large part on the current physical condition of the PGL system. The characteristics and risks of PGL's system determine the SMP's appropriate design, scope, and pace (constancy and duration) and can inform affordability adjustments. According to the City, prudence requires a more current system evaluation to update the most recent physical assessment of the system. The City states that, as proposed, PGL's SMP goes beyond safety-based pipeline replacement, and suggests that there may be space for differentiation in the prioritization of elements of the program without compromising public safety.

According to the City, PGL confirmed that not all elements of its proposed SMP respond directly to PHMSA's "Call to Action" or have the same public safety urgency. Further, the City concludes that PGL lowered the requirements for accelerating investments, and includes elements needed "to improve" safety, reliability and efficiency in its proposed SMP. Similarly, Staff places all program elements on the same footing, as long as they meet Staff's threshold criterion -- a simple requirement that they "provide

safety, reliability and efficiency benefits.” In the circumstances of today’s affordability challenges, the City argues that these “improve” and “benefits” criteria (instead of public safety requirements) may not be prudent or reasonable, and that affordability challenges may require distinctions in their treatment. Those Commission determinations will require defining any such distinctions, based on current information on the physical condition of PGL’s system.

Both the City and the AG argued for certain recommendations. First, they argue that an assessment of the current condition of PGL’s system is the essential foundation for determining what SMP costs are necessary (public safety) and what costs can be balanced with affordability. Second, because the PGL and Staff arguments for delaying an updated study are based partly on an assumed need to evaluate PGL implementation performance, any request for delay should be rejected. PGL’s performance over a period of future years will not change what the Commission needs to know as it reviews PGL’s proposed program now -- the current condition of PGL’s system. Finally, they ask that the Commission order that affordability be incorporated as an integral element of SMP planning and use it as a criterion of its own SMP determinations. *Id.* at 18 and 24.

The most recent independent assessment of PGL’s physical system was the Kiefner Study. AG Ex. 4.2. That Study, which is a decade old, relied heavily on field test results from the even older (2002) Zinder engineering study. The Commission’s affordability response must begin by determining the flexibility public safety permits. This is a fact question best answered by an independent assessment of the **current** condition of PGL’s system. A timely report replicating the scope and pace of the Zinder Report could be completed in a matter of months. AG Ex. 7.1 at 2. The Commission should order that system assessment.

The City also posits that affordability should not be solely a Commission obligation. Because prudent management of an unaffordable plan is not an adequate response to the SMP’s affordability issues, the City argues that the Commission should order, in addition, that the utility must:

- integrate affordability as a critical element of SMP program design and planning;
- continue or expand its voluntary initiatives to moderate rate impacts, recognizing that affordable rates and paid bills help both consumers and investors; and
- provide the Commission with a current, independent assessment of the physical conditions of PGL’s mains, to guide the Commission response to affordability issues, among others.

Mr. Gorman also identified regulatory actions that do not require changes to the SMP’s engineering elements and that, as part of SMP program design, could help the Commission protect the affordability of gas utility service. The Commission should consider these options, even if the Commission does not modify the proposed SMP’s engineering parameters. City Ex. 5.0 at 11.

The Commission must order that affordability be explicitly and transparently incorporated into PGL’s program design and approval, actively considered in periodic program updates, and tracked (from current baseline metrics) over the course of SMP’s

implementation. The Commission must give the same importance to affordability in its own determinations regarding the scope and pace of PGL's SMP and in regulatory actions to moderate the affordability impacts of the SMP.

The Phase II record provides a solid evidentiary basis for immediate Commission findings on affordability and rate impact. The Commission must reject Staff's proposal to defer affordability determinations and act on affordability issues on this record. Informed Commission responses begin with an updated system assessment to identify the limits defined by public safety. To monitor the effectiveness of its affordability responses, the Commission should order PGL to provide baseline metrics on affordability (e.g., disconnections, arrearages and uncollectibles), and to include updates in its annual reports, for periodic Commission reviews of PGL's gas utility service affordability.

(v) Commission Analysis and Conclusion

Peoples Gas provided the requested information for Commission consideration. The Company stated that it does not plan to increase spending by these amounts, and no other party has advocated for such spending escalation to be adopted. Therefore, the Commission will note the impacts on rates going forward.

- b. Should increases in customer rates track increases in performance? For example, should a 4% increase in customer rates equate to a 4% increase in safety and reliability?**

(i) Peoples Gas' Position

Peoples Gas explains that the QIP law allows Peoples Gas to recover its investments in qualifying infrastructure plant through a rider, provided that such investments are reasonable and prudent and do not exceed certain statutory caps. 220 ILCS 5/9-220.3. However, nothing in the QIP law allows the Commission to incentivize or penalize certain activity or performance in connection with QIP investments. *Id.*

The PUA contains two provisions authorizing Illinois utilities to seek Commission approval of performance-based rates and directing the Commission to approve those rates, provided that certain statutory criteria are satisfied. 220 ILCS 5/16-108.5; 220 ILCS 5/9-244. However, neither provision authorizes the Commission on its own initiative to develop performance-based rates or impose them on the utility. *Id.* Rather, both provisions set up a process whereby the utility may propose performance-based rates by filing a petition with the Commission, which the Commission may then approve or reject. *Id.* For this reason, there is no legal basis for the Commission, in the absence of a utility-initiated petition, to impose a performance-based tariff scheme that would allow increases in customer rates only commensurate with increases in safety and reliability.

The first provision of the PUA is the Energy Infrastructure Modernization Act ("EIMA"). EIMA is codified at Section 16-108.5 of the PUA. 220 ILCS 5/16-108.5. EIMA authorizes select electric utilities and combination utilities to seek Commission approval of performance-based formula rate tariffs. *Id.* Peoples Gas is neither an electric nor a combination utility, and EIMA is inapplicable to it.

The second provision (Section 9-244 of the PUA) provides for “alternative rate regulation.” This section authorizes any electric or gas utility to seek Commission approval of performance-based rates. 220 ILCS 5/9-244(a) (“... the Commission, *upon petition by an electric or gas public utility*, and after notice and hearing, may authorize ... regulatory mechanisms that reward or penalize the utility through the adjustment of rates based on utility performance.”) (emphasis added). Although Section 9-244 has broader application than EIMA (*i.e.*, it applies to all Illinois electric and gas utilities), the fact remains that both provisions place the utility in the driver’s seat when it comes to performance-based rates.

The Commission is a creation of the Illinois legislature and derives its power exclusively from legislative mandates and authorizations. *Alhambra-Grantfork Tel. Co. v. Ill. Commerce Comm’n*, 358 Ill.App.3d 818, 823 (5th Dist. 2005); *Citizens Utility Bd. v. Ill. Commerce Comm’n*, 315 Ill.App.3d 928, 936 (3rd Dist. 2000). As such, the Commission may act only in accordance with expressly delegated legislative authority. *Id.* Here, there is no Illinois law, other than EIMA and Section 9-244, that authorizes the Commission to regulate utilities under a performance-based ratemaking model. If the legislature wanted to allow the Commission to force utilities to adopt performance-based ratemaking in the absence of a utility-initiated petition, it would have done so explicitly under EIMA or Section 9-244 of the PUA.

(ii) Staff’s Position

See V.B.5.f and IX.A.

(iii) Commission Analysis and Conclusion

The Commission notes that under Section 9-244 of the PUA, utilities are allowed to seek an alternative to rate of return regulation. Peoples Gas would have to petition the Commission to proceed on a performance based system modernization program. This Commission derives its authority solely from the Act. Because the Commission is purely a statutory creation and possesses no inherent or common law authority, its jurisdiction is limited by the Act. Under the Commission’s subject matter jurisdiction, it has the authority to hear and determine a particular class of cases. The Commission may also grant specifically authorized relief. An administrative agency is limited to the powers granted to it by the legislature and any action it takes must be authorized by statute. *Crittenden v. Cook County Comm’n of Human Rights*, 2013 IL 114876, 990 N.E.2d 1161, 1165. The Commission finds that there is nothing in the Act that gives the Commission the authority to require Peoples Gas to participate in an incentive based program.

c. Is the program/will the program be affordable considering demographics of Peoples Gas customers?

(i) Peoples Gas’ Position

Peoples Gas explains that it calculated the SMP’s impacts on the average Service Classification No. 1, Small Residential Service, heating customer. The table below summarizes the potential bill impacts under Peoples Gas’ proposed three-year plan, and shows that customer bills will increase by an annual average of 2.3%. The three-year

plan calculation covers all Rider QIP eligible work (*i.e.*, a broader scope of work than that for which Staff has indicated it wants reporting in this docket).

While it is impossible to design a program to accomplish the broad goals of the SMP without impacting customers, and while it is true that there are some customers who may face an increased burden as a result of the project cost, that cost must be viewed in the context of what is being accomplished: eliminating from Peoples Gas' system natural gas mains that pose a threat to human safety and property. Peoples Gas has taken steps to mitigate this cost by slowing the project down and incorporating efficiencies in the program design.

Peoples Gas explains that its approach throughout this proceeding has been to attempt to isolate the SMP's cost impact for customers; after all, this docket concerns the SMP, not all of the various other factors that may or may not impact customer bills over time. The AG, by contrast, persists in attempting to expand the scope of the cost discussion to cover all aspects of customers' bills. It is difficult enough to attempt to predict the future capital costs of the SMP in isolation and that difficulty is compounded by the AG's attempt to capture the impacts of any number of factors, including factors such as commodity costs that are beyond Peoples Gas' control. PGL Ex. 9.0 REV at 8.

Peoples Gas presented comparisons of bill impacts between the Company's proposal and the AG's alternative \$130 million and \$157 million per year proposals. Notably, it shows that when compared head-to-head, the proposals are not as different, in terms of bill impacts, as the AG would have the Commission believe.

Peoples Gas explains that this demonstrates a number of things. It shows that under the AG's proposals the SMP would cost much more in the long run (under the AG's \$130 million per year proposal, \$11,667 more per customer over the life of the project). It also shows that in the peak year, under the AG's \$130 million per year proposal, customer bills would be approximately \$238 more than under Peoples Gas' proposal. It demonstrates that on a present value basis, the Company's proposal is only modestly more expensive than the AG's proposals. In return, the citizens, businesses and visitors who live, work and play in Chicago will receive a safe natural gas system decades earlier, reflecting an urgency that matches the dangers posed by at-risk natural gas mains.

The AG purports to show the bill impacts for customers under the competing proposals. However, the AG only tells half the story, because the bill impacts cut off after the peak year of Peoples Gas' spending, but while costs for customers under the AG's proposals are still on the increase. Peoples Gas uses the Burns & McDonnell cost projections, which form the basis for the Company's bill impacts analysis, and show that the peak year bill impact is lower and the SMP is "paid off" in a much shorter time than in either of the AG's proposals.

Peoples Gas explains that the AG takes the position that the Company's bill impact projections should not be credited because they are not in line with what Peoples Gas has spent on the SMP in the last several years. Peoples Gas' bill impact calculations are based on the Burns & McDonnell 2040 completion model. The AG's preferred method of calculating bill impacts is to take 2017 spending of approximately \$300 million as set forth in the current three-year plan and escalate that at 3% per year. While it is true that the

Burns & McDonnell model assumed somewhat lower spending in the early years of the SMP, Peoples Gas witness Ms. Egelhoff explained that the difference was not material because “we expect that the model will reflect total program costs and consequent bill escalation, even if spending in any year varies from the assumed levels in the long-term model.” PGL Ex. 13.0 at 4.

Exacerbating the AG’s comparison is the fact that they use the Company’s modelling in ways that are inconsistent with the original intent. The Burns & McDonnell cost and schedule model is intended to model the projected cost and scope of the SMP over its entire life and therefore is an appropriate basis for rate impact projections over the course of the project. PGL Ex. 9.0 REV at 4. The three-year plan, on the other hand, is intended to be used as a planning and implementation tool and also covers a broader scope of work than just the SMP -- all QIP-eligible work. *Id.* at 4-5. It is less appropriate as a tool to predict total spending over the life of the SMP.

The City argues that Peoples Gas has taken a “utility perspective” on the issue of affordability and bill impacts by focusing on cost control while giving short shrift to customer-specific economic issues. To a certain extent, the City is correct that Peoples Gas is focused on cost control. All parties take as a given that the SMP must be completed to rid Chicago’s natural gas system of at-risk main. Against that background, the best thing the Company can do is to ensure that the SMP is conducted efficiently, which will decrease bill impacts for customers. However, it is unfair to say that Peoples Gas has ignored customers’ perspectives when designing and implementing the SMP. To the contrary, one of the most fundamental changes new management made to the program was to extend its timeline by 25% to 50%, from the original 2030 end date to a range of 2035 to 2040. This was done, in significant part, to mitigate rate impacts for customers while at the same time ensuring that the project would still effectively realize its primary goal -- safeguarding the lives and livelihoods of Chicago residents and visitors.

Peoples Gas explains that it is also pursuing and realizing efficiencies in several ways through its design and implementation of the SMP. Mr. Therrien summarized these efforts in his rebuttal testimony. With respect to the SMP’s design, Mr. Therrien testified that the Company is reducing costs in the following ways:

- Peoples Gas’ strategic use of the neighborhood approach in conjunction with Public Improvement and System Improvement projects produces significantly lower costs per mile;
- The SMP incorporates three-year rolling plans that reduce costs by updating prioritization of work on an annual basis to ensure that the riskiest pipe is replaced each year and that the prioritization of neighborhoods can be updated in response to more recent data that reveals contemporary pipe condition. This approach reduces the need to replace pipe in response to emergencies at a higher cost per mile;
- Moving meters outside will reduce future inspection costs by making it easier to perform inspections;

- Upgrading the system to medium pressures enables Peoples Gas to install smaller diameter pipe, saving on materials and installation costs; and
- Lower leak rates from new pipe lowers operations and maintenance costs by reducing the number of truck rolls to inspect reported leaks and subsequently repair those leaks.

PGL Ex. 8.0 REV at 18-19. The Company is also realizing efficiencies in project execution in the following ways, all of which reduce overall project cost and mitigate bill impacts:

- Peoples Gas engages in competitive bidding to select contractors across the majority of SMP work. Bids frequently require fixed project or unit pricing that helps control the costs of unanticipated scope changes;
- Change order requests are subject to rigorous governance to ensure that the requested scope change is necessary;
- Engineering and construction contracts include performance goals and metrics and include incentives that reward superior performance; and
- Peoples Gas has optimized its SMP work force by using a mix of in-house and contractor resources.

Id. at 19-20.

The City argues that Peoples Gas should be required to “provide baseline metrics on affordability (e.g., disconnections, arrearages and uncollectibles), and to include updates in its annual reports, for periodic Commission reviews of [Peoples Gas’] gas utility service affordability.” This concept has not been developed in the record, and, in any event, this information is provided to the Commission as part of regularly-required reporting in other contexts. The City’s proposal does not explain how these “baselines” should be measured to account for the myriad factors that can increase costs but have nothing to do with Peoples Gas’ actions or the SMP, including the availability of customer assistance in any given year, changes in commodity prices, other expenses customers may face and so forth. The Commission should reject this attempt to inject yet further complication into an already-complicated proceeding.

Peoples Gas explains that the AG, CUB, Sargent Shriver and the City all rely heavily on AG witness Mr. Colton’s census-based testimony about the affordability of Peoples Gas’ current and future bills for certain segments of the Company’s customer base. Mr. Colton’s analysis is based entirely upon the assumption that census tract data regarding Chicago households and incomes is identical to the incomes of Peoples Gas’ actual customer base. Mr. Colton’s claims about the disparate racial impact of increases in gas bills is based on the same census data. However, as Peoples Gas witness Ms. Egelhoff has pointed out, neither Mr. Colton nor Peoples Gas has any way of knowing whether census data accurately reflects Peoples Gas’ customer base, and as a result his resulting conclusions about affordability are suspect. PGL Ex. 9.0 REV at 10. Mr. Colton has conceded as much by admitting that he does not have “information regarding the number of customers and average usage or any other information regarding natural gas bills for customers for each of the 793 census tracts.” *Id.*; PGL Ex. 9.1. Ms. Egelhoff explained why this lack of information undermines the credibility of Mr. Colton’s findings:

Not every household in the City that is counted in the census is a Peoples Gas customer. To take one example of how this fact affects Mr. Colton's analysis, he states that in 2015, approximately 200,000 Peoples Gas customers fell within the one-fifth of the Chicago population with the lowest incomes and some of his calculations and conclusions are derived from that data point. However, Peoples Gas does not maintain customer income data in any form, including by census tract, so it is impossible to know the extent of correlation between census tract data and customer data. Because Peoples Gas does not collect income data from its customers, it is impossible to know whether or not the poorest one-fifth of Chicago residents are Peoples Gas customers.

PGL Ex. 9.0 REV at 10-11. The bottom line is that Peoples Gas has never taken the position that all customers will easily be able to absorb the inevitable bill increases that will result from the SMP; rather, Peoples Gas' focus has been on controlling the cost of the project through efficient project management and setting a timeline for completion that will mitigate bill impacts to the greatest extent possible while still completing the SMP on a schedule that will mitigate the likelihood of catastrophic explosions leading to the loss of life and property.

Peoples Gas explains that the AG, CUB and Sargent Shriver focus on the inherent unpredictability of LIHEAP funding to argue that current customer-assistance programs are inadequate to meet the current and future needs of low-income customers in Chicago. However, neither Mr. Colton nor Peoples Gas is able to accurately predict how LIHEAP funding may fluctuate over time, so Mr. Colton is merely speculating about what portion of Peoples Gas' customers may benefit from such funding in any given year. Likewise, as Mr. Therrien points out, it would be unreasonable to adjust the scope and pace of the SMP based on factors, like LIHEAP funding, that are completely outside of Peoples Gas' control. PGL Ex. 8.0 REV at 16.

The AG argues that some of Peoples Gas' witness Therrien's criticisms of Mr. Colton's testimony are "simply untrue." In particular, the AG attacks Mr. Therrien's testimony in which he stated that Mr. Colton's analysis assumes that incomes will not increase during the term of the SMP. *Id.* However, the AG then concedes that Mr. Colton's affordability analyses *do not assume any increases in income*; rather, according to the AG, Mr. Colton is making a "more basic conclusion." *Id.* In other words, because Mr. Colton concludes that program costs will outstrip income gains, he need not even attempt to adjust for those gains. Similarly, the AG attacks Mr. Therrien's argument that Mr. Colton's analysis assumes as a baseline no increase in gas rates -- in other words, that customers will be "held harmless." But then, the AG explains that Mr. Colton did just that by comparing both the AG's program proposals and the Company's against a baseline of zero rate increases. Thus, the AG's criticisms of Mr. Therrien's testimony should be rejected.

Peoples Gas explains that AG witness Mr. Colton argues that there are multiple aspects to an affordability analysis of a major project such as the SMP and that there are

several ways of looking at the concept of public safety. For example, Mr. Colton argues that increases in gas bills “will lead directly to increases in both the extent and severity of public illnesses.” AG Ex. 8.0 at 31, 35. However, the SMP and Peoples Gas’ investment to upgrade Chicago’s gas infrastructure does not exist in a vacuum. PGL Ex. 11.0 at 18-19. It is integrally linked to the very community it is designed to protect. *Id.* The SMP has created and sustained more than 1,000 jobs directly and also supports countless enabling jobs. *Id.* The women and men of Chicago and the region provide professional, construction and many other services supporting the SMP. *Id.* Furthermore, Peoples Gas is actively engaged in programs to increase the direct employment of military veterans and students in Chicago Public Schools. These programs would not exist without the resource needs of SMP. *Id.*

Peoples Gas explains that, with respect to employment attributable to the SMP, during construction season peaks Peoples Gas and its contractors employ over one thousand people on SMP projects. PGL Ex. 11.0 at 19. This number is more significant when taking into account the indirect jobs the SMP creates in the communities and localities where Peoples Gas employees work. *Id.* Mr. Hesselbach highlighted several such benefits in his surrebuttal testimony and explained how the approximately \$300 million in annual SMP spending benefits Chicago:

In the most literal sense, that money is being spent to develop a safe and reliable natural gas delivery system for Chicago. However, more broadly, the majority of that money is spent on goods and services from a large array of contractors and other suppliers, which provide family- and community-supporting jobs in the Chicago area. Large scale construction projects like the SMP are by their nature local undertakings, and we are proud to contribute to Chicago’s economic development by providing jobs to Chicago-area workers, while at the same time delivering a safe and reliable system for these workers, their families and the broader community.

PGL Ex. 11 at 22-23.

Peoples Gas explains that it has made strides on its hiring and retention of minority-owned firms. PGL Ex. 11.0 at 19-20. Supplier diversity is one of Peoples Gas’ top priorities. *Id.* Peoples Gas is committed to growing its program and is aggressively engaged in identifying opportunities and entering into agreements for goods and services with diverse firms – many of which are locally owned and operated. *Id.* For example, in 2016 Peoples Gas secured more than \$69 million in goods and services from minority-, women- and veteran-owned business (or, for shorthand, “diverse business enterprises” or “DBEs”). Of that \$69 million, \$60 million (86%) was spent with Illinois-based firms. *Id.* To give just one example of Peoples Gas’ progress in this area, in 2016 Peoples Gas increased spending on DBEs in the Engineering and Technical Services category by 103% over 2015. *Id.* Further, the 2016 spend of \$69 million was six times what Peoples Gas spent with DBEs in 2013, and nearly double Peoples Gas’ DBE spend in 2015. *Id.*

Peoples Gas expects its large prime contractors to enter into contracts with diverse subcontractors for no less than 20% of the contract value. *Id.* To ensure the prime

contractors are focused on this expectation, Peoples Gas has updated its agreements to include this 20% requirement. *Id.* Peoples Gas also has periodic meetings with contractors' project and senior management personnel to discuss their plans to meet the 20% requirement. *Id.* Peoples Gas monitors spend against the 20% requirement by obtaining monthly actual spend amounts and the identities of the subcontractors our prime contractors have utilized. *Id.* Also, on select projects, Peoples Gas includes the project diverse participation on a scorecard, which puts a portion of contractors' fees at risk (or reward). *Id.*

There are other ways that Peoples Gas supports DBEs through the SMP. PGL Ex. 11.0 at 20-21. Peoples Gas is involved in a contractor "matchmaker" process through the Illinois Utilities Business Diversity Council ("IUBDC") that aligns procurement opportunities with DBEs' core capabilities. *Id.* The IUBDC hosts events focused on matchmaking and networking to identify qualified suppliers with specialized utility experience. *Id.* Participating companies also leverage the larger vendor pool that has been generated by the IUBDC to include new diverse suppliers in competitive bidding events, internal matchmaker meetings, developmental workshops and internal symposiums. *Id.* At Peoples Gas, as firms inquire about providing goods and services for the SMP and other projects, matchmaker meetings are held with representatives from various departments (e.g., contract services, procurement, engineering, operations, etc.) to discuss Peoples Gas' needs and the inquiring DBE's qualifications and experience. *Id.* The goal of these matchmaker meetings is to determine if there is match or potential opportunity to bid on and provide services or materials. *Id.*

Peoples Gas also has programs to assist veterans. PGL Ex. 11.0 at 21-22. In April of 2012, Peoples Gas began the Gas Sector Utility Workers Training Program. *Id.* Through an affiliation with a national training to placement program, the Utility Military Assistance Program ("UMAP"), this program allows veterans to develop the skills needed to work in Illinois' natural gas industry. *Id.* Peoples Gas developed the Gas Sector Utility Workers Training Program in collaboration with the City Colleges of Chicago, Local 18007 and the UWUA Power for America Training Trust Fund. *Id.* The program is supported by multiple funding sources including Peoples Gas, the UWUA Power for America Training Trust Fund, federal dollars under the Workforce Innovation and Opportunities Act, Chicago Federation of Labor, the Illinois Department of Commerce and Economic Opportunity and the U.S. Department of Veterans Affairs. *Id.*

Students in the Gas Sector Utility Workers Training Program receive seven months of intensive classroom instruction and in-the-field training. *Id.* This training is designed to address safe construction and operation of natural gas distribution systems. *Id.* Program participants earn 50 college credits toward an Associates' Degree, and receive a Gas Utility Worker Advanced Certification at Dawson Technical Institute, which is a satellite site of Kennedy-King College, one of the City Colleges of Chicago. *Id.* To date, more than 290 graduates have completed the program and 249 have accepted offers to work for Peoples Gas. *Id.* A new cohort of 27 students started in the Gas Sector Utility Workers Training Program on July 14, 2017. *Id.*

(ii) Staff's Position

As Staff states that Section 9-220.3 of the PUA governs the affordability of main replacement projects such as SMP, and the General Assembly, in enacting Section 9-220.3 of the PUA, has conclusively resolved the question of affordability. More specifically, the General Assembly has determined that “[t]he cumulative amount of increases billed under the [QIP] surcharge ... shall not exceed an annual average 4% of the utility’s delivery base rate revenues, but shall not exceed 5.5% in any given year.” 220 ILCS 5/9-220.3(g).

(iii) AG's Position

The AG argues that along with ensuring the safety and reliability of the PGL delivery system, the Commission recognized in its Re-Opening and Initiating orders the importance of investigating and ensuring the affordability of PGL customer rates through this proceeding – both in examining the impact the impact on customers rates of the existing AMRP as well as in its evaluation of how and at what pace the program should continue. AG witness Roger Colton examined the issue of affordability of PGL rates within the context of the Company’s proposed SMP. In particular, Mr. Colton examined the capacity of PGL ratepayers to absorb increased costs associated with the Company’s proposed gas main replacement program, as well as the public safety and health risks facing the Company’s customer base and the public in general, arising from imposing the affordability risks associated with the Company’s gas main replacement program. See, *generally*, AG Ex. 7.0R. Regarding the AG’s discussion of public safety issues, see Section II.C above.

The AG asserts that the PUA requires PGL to furnish, provide, and maintain such service equipment and facilities that are the least-cost means of providing that service. 220 ILCS 5/8-401. To examine whether residents of Chicago, which comprise the Company’s customer base, have the financial capacity to absorb substantial bill increases to support the Company’s preferred version of its gas main replacement program, Mr. Colton examined the ability of households to pay additional costs based on: (1) the future bill increments associated exclusively with the gas main replacement program; and (2) the future total gas bills of which the costs of the gas main replacement program are but one component. As part of his analysis, Mr. Colton disaggregated data by Census Tract thereby allowing the Commission to get some sense of the distribution of any inability to absorb increased natural gas bills into household budgets. AG Ex. 5.0R at 7.

The AG stated that Mr. Colton examined income for two groups of Chicago residents: (1) Households by median income; and (2) Households by quintile of income. He explained that looking only at median income, rather than segments of the population, would mask the hardships facing many Chicago residents. Since using median income masks the impacts of bill increases on those least able to pay, he next examined households in the first quintile of income. In addition, Mr. Colton examined Census Tracts that have a predominantly African-American population in order to assess whether certain racial groups would be disproportionately impacted by the Company’s AMRP plans. AG Ex. 5.0R at 7-8. Of Chicago’s 793 Census Tracts, 246 have more than 75% of the household headed by an African-American individual. *Id.* at 7.

The AG argues that even median income customers will find PGL service unaffordable under the Company's SMP proposal. The AG explained that Mr. Colton first the rate impacts of the SMP on Chicago's median income households. Mr. Colton looked at the capacity of households with median incomes to absorb the bill increases under: (1) the Company's proposed option; and (2) the AG's proposed alternative. In this analysis, he examined how much of an increase in income is necessary for customers to be *no worse off* from an affordability perspective. *Id.* at 8-9.

As noted above, the AG's proposal to begin with an investment of \$130 million, with a prescribed allowable escalation thereafter, results in substantially fewer harms than the Company's alternative. Mr. Colton found:

- ▶ By the year 2024, while more than 100,000 median income natural gas customers would need to increase their income by 60% or more under the Company's proposal, none would need such an income increase under the Attorney General's proposal. *Id.* at 9.
- ▶ By the year 2032, while more than 180,000 median income natural gas customers would need to increase their income by 90% or more under the Company's proposal, while only 1,377 would need such an income increase under the Attorney General's proposal. *Id.* at 9.
- ▶ By the year 2040, nearly 300,000 median income natural gas customers would need to increase their income by 90% or more under the Company's proposal, while fewer than 13,000 would need such an income increase under the Attorney General's proposal. *Id.* at 9.

The AG stated that Mr. Colton noted that it is extremely unlikely that median incomes are not going to increase by 90% or more between the years 2020 and 2040. He concluded that the Company's gas main replacement program will place hundreds of thousands of Chicago households at substantial risk, even at median income. *Id.* at 9-10.

The AG points out that in contrast to the very large increases in income needed to maintain the same level of affordability, far more people would need far more attainable income increases under the AG's proposal. For example, by 2028, nearly seven times fewer customers would be able to afford the Company's proposed SMP pace than under the AG's recommended timeline. Fewer than 100,000 customers would be able to absorb the higher bills with a 20% income increase or less under the Company's proposal, while more than 680,000 natural gas customers would be able to absorb the bills with an income increase of that low level under the AG's proposal. By the year 2036, nearly 450,000 natural gas customers would remain harmless against a gas main replacement program under the AG's proposal, compared to fewer than 115,000 under the Company's proposal. *Id.* at 10.

The AG states that Mr. Colton next examined the required incomes against total bills rather than isolating the costs of the gas main replacement program as a stand-alone bill component. He noted that bill affordability is not determined exclusively by a single bill component, but rather is based on the total asked-to-pay amount presented to each customer. The need to mitigate increased costs associated with the gas main

replacement program is evident when these total bills are examined in light of median income. *Id.* at 10-11; Schedule RDC-1 (page 2 of 2). Mr. Colton found:

- ▶ By the year 2024, under the Company's option, nearly 7,000 median income natural gas customers would require an increase in income of 400% or more to have their total bill represent an affordable burden. In contrast, under the Attorney General's proposal, 2,500 natural gas customers would need similar income increases. *Id.* at 11.
- ▶ By the year 2028, more than 73,300 median income natural gas customers would need an income increase of 300% or more to pay their total natural gas bill with the gas main replacement costs using the Company's proposal, contrasted to only 22,500 under the AG's proposal. *Id.* at 9.
- ▶ By the year 2036, 124,000 median income natural gas customers (at median income) would need an income increase of 300% or more to pay their total natural gas bill with the Company's current gas main replacement proposal, in contrast with 64,000 under the AG's proposal. *Id.* at 9.

The AG asserts that the increases in median income that would be necessary to allow customers to affordably absorb the costs of a gas main replacement program are not going to occur based on recent economic trends detailed in Census data. This is so because a substantial portion of Chicago has been losing ground relative to the City's median income in recent years.

The AG explains that Mr. Colton's Schedule RDC-2 shows the City's median income by year for the five years 2011 through 2015 (the last year for which data is available). At first glance, it may appear that the City as a whole improved its economic position in the five years 2011 through 2015. But progress was not city-wide. In 360 Census tracts (representing more than 385,000 natural gas customers) (out of a total of 793 Census tracts), median income declined from 2011 to 2015. In 329 tracts (representing nearly 360,000 gas customers), median income declined by more than \$1,000 over the five-year period, while in 255 Census tracts (representing nearly 270,000 gas customers), the decline exceeded \$3,000. In 185 tracts (representing more than 192,000 gas customers), median income declined by more than \$5,000, while in 68 tracts (representing nearly 68,000 gas customers), it declined by more than \$10,000. *Id.* at 11-12.

The AG adds that the areas of decline were not racially neutral. In the City as a whole, 31% of the Census tracts were "Predominantly African-American" (*i.e.*, more than 75% of heads of household were African-American). In contrast, 38% (70 of 185) of the Census tracts where total median income declined by more than \$5,000 were "Predominantly African-American"; 40% (27 of 68) of the tracts where median income declined by more than \$10,000 were "Predominantly African-American". Overall, 37% of the Census tracts where total median income declined at all were Predominantly African-American. *Id.* at 113.

Based on this data, the AG asserts that a substantial proportion of the City of Chicago has experienced a decline in their ability to absorb increased natural gas bills in the past five years. Furthermore, as noted above, the decline in the ability to pay particularly affects Chicago's African-American population. Mr. Colton stated that any

assertion that future total natural gas bills, or even simply the natural gas bill increases attributable to the gas main replacement program as proposed by the Company, will be affordable at median income levels is simply not consistent with the historical changes in median incomes in Chicago. *Id.* at 13.

The AG claims that Mr. Colton's findings are significant for three reasons. First, the data demonstrates that the affordability problems presented by the Company's gas main replacement program are not exclusively "low-income" problems. The data above demonstrates that low-income assistance dollars provided through the LIHEAP and PIPP do not even begin to address the total affordability problems. The total affordability problems extend into the middle class as measured by median income. *Id.* at 14.

Second, the data demonstrates that the affordability problems caused by the Company's gas main replacement program are not isolated. The affordability problems identified above, at median income, are not limited to hundreds, or thousands, or even tens of thousands of natural gas customers. The affordability problems that would result from the Company's proposal instead extend to hundreds of thousands of customers. *Id.* at 14.

Third, the data above demonstrates that the AG's alternative, which spreads the cost of the project over a longer period of time and better pinpoints safety issues as compared to PGL's expansively-defined three-year proposal, substantially mitigates the affordability problem at median income. Indeed, given the cost of gas main replacement, it is not possible to completely mitigate the resulting adverse impacts on affordability. Nonetheless, the proposal advanced by the AG offers substantial mitigation of the resulting affordability harms. *Id.* at 14.

The AG next argued that and low-income PGL customers will be especially harmed if PGL's proposed SMP is adopted. Mr. Colton's analysis of the ability of Chicago's population to absorb increased natural gas bills also examined data regarding the one-fifth of the Chicago population with the lowest income. This one-fifth is generally referred to as the lowest income quintile. The data on the level of income over the five-year period 2011 through 2015, for the First Quintile, is set forth in Mr. Colton's Schedule RDC-3. *Id.* at 15; AG Ex. 5.0R, Schedule RDC-3.

The AG asserts that the uncontroverted evidence in the record shows that the low-income population in Chicago is both substantial *and* growing. In 2015, roughly one-in-eight Census tracts in Chicago (12.1%) had a First Quintile mean income of \$4,000 or less. Substantially more than one-in-three Census tracts in Chicago (36.2%) had a First Quintile mean income of \$8,000 or less. Given that 100% of the Federal Poverty Level for a one-person household in 2015 was \$11,770, and for a two-person household was \$15,930, it is evident that, on average, First Quintile households in these Census tracts are not simply in poverty, but they are in significant poverty, with incomes well below the Federal Poverty Level. In 2015, there were roughly 200,000 natural gas customers with incomes falling in the First Quintile of Chicago. *Id.* at 16. That amounts to nearly a third of PGL's 675,022 customers who are living in significant poverty. AG Ex. 8.0 at 9.

The AG adds that the number of Census tracts with very low incomes is increasing, not only in absolute terms, but in percentage terms as well. In 2015, 30 additional Census

tracts had a mean income of \$4,000 or less than in 2011, while 56 additional Census tracts had mean incomes of \$4,001 to \$8,000 or less than in 2011. The percentage of census tracts with mean incomes of \$4,000 or less increased by nearly 40% (from 8.8% in 2011 to 12.1% in 2015), while the proportion with mean incomes of \$4,001 to \$8,000 increased by more than 10% (from 32.7% in 2011 to 36.7% in 2015). AG Ex. 5.0R.at 16.

The AG noted that unlike the total population for the City of Chicago (measured by median income), the quintile of households with the lowest incomes (*i.e.*, the First Quintile) has *not* seen its economic conditions improve between 2011 and 2015. Instead, the mean income for the First Quintile decreased from \$8,880 in 2011 to only \$8,716 in 2015. *Id.* at 15.

The AG avers that notwithstanding these significant numbers, the record evidence shows that the Company made no analysis to determine the impact of the gas main replacement program on low income customers. While the Company acknowledges that “the SMP *may cause a strain* for some customers” (PGL Ex. 5.0 at 51 (emphasis added)), Peoples Gas made no effort to define, let alone to calculate or quantify, what that “strain” might involve. At most, Peoples Gas states that it “recognizes that there is a segment of its customer base for which utility bills can add to financial hardship.” AG Ex. 5.0R at 17. While the Company asserts that it has “calculated the SMP’s impacts on the average Service Classification No. 1, Small Residential Service, heating customer,” it acknowledges that it has “only calculated bill impacts.” *Id.* at 17, citing PGL Ex. 5.0 at 47. But PGL does not know, and has not sought to determine, what the full range of “impacts” will be, including the adverse health and safety impacts that can be attributed to the increased bills.

The AG argues that to assess the affordability and capacity to pay of PGL’s AMRP on low income households within the Company’s service territory, Mr. Colton examined the capacity to pay at low income from two different perspectives: the capacity to absorb the bill increases attributable to the gas main replacement program and the capacity to absorb total bills, of which the gas main replacement costs are but one component. His analysis looked at both the program as proposed by the Company and for the alternative as has been advanced by the AG’s office.

The AG states that Mr. Colton examined how much of an increase in income is necessary for customers to be no worse off from an affordability perspective. The AG proposal, which calls for PGL to begin with an annual AMRP investment of \$130 million, with a prescribed allowable escalation, results in substantially fewer harms than the Company’s alternative, according to the record evidence and as set forth in Mr. Colton’s Schedule RDC-5 (page 1 of 2). The data shows:

- ▶ By the year 2024, more than 84,400 low-income natural gas customers would need to have an increase in their income of 200% or more to find the Company’s gas main replacement proposal affordable. By comparison, 16,000 would need an income increase that large under the AG’s proposal. *Id.* at 18.
- ▶ By the year 2032, nearly 50,000 low-income natural gas customers in Chicago would need to experience an income increase of 400% or more,

while 7,600 would need to have such an increase under the AG's proposal. *Id.* at 19.

- By the year 2040, nearly 9,700 low-income gas customers would need to have an income increase of 600% or more to afford the Company's gas main replacement program, while 5,200 low-income customers would need such an income increase under the AG's proposal. *Id.*

The AG concludes that Mr. Colton's analysis shows that although it is difficult to maintain an affordable bill for many households under either the Company's proposal or even the AG's proposal, in each year, the AG's gas main replacement option improves affordability for thousands of low-income gas customers.

The AG states that Mr. Colton next examined the required incomes against total bills rather than isolating the costs of the gas main replacement program, recognizing that bill affordability is not determined based exclusively on a single bill component, but rather is based on the total asked-to-pay amount made to each customer. The data is set forth in Schedule RDC-5 (page 2 of 2). Mr. Colton found that total gas bills are generally unaffordable for low-income customers in Chicago, and the Company's gas main replacement program substantially exacerbates that problem. The data shows that the AG's proposal benefits low-income customers on both the "high" end and the "low" end of the spectrum:

- By the year 2024, 10,000 more low-income customers would require an income increase of 700% or more in order to afford their total gas bill under the Company's proposal than under the AG's proposal (AG: 96,774; PGL: 105,521). *Id.* at 20.
- By the year 2036, 71,200 households would require an income increase of 900% or more to have affordable natural gas bills with the costs of the gas main replacement program as proposed by the Company, compared to 54,266 customers who would experience such income increases under the AG's proposal. *Id.*

The AG explains that the data on the income increases necessary to keep bill increases affordable is presented in Schedule RDC-6. In Schedule RDC-6 (page 1 of 2), it is evident that the increases in median income necessary to keep the bill increases affordable are much less using the AG's proposed gas main replacement option. Substantially fewer natural gas service households would require large increases in their income under the AG's option and substantially more natural gas households would require relatively small increases in their income. By 2030, for example, while more than 112,800 natural gas service customers at median income would require an increase in their income of 40% or more under the Company's option, only 23,400 would require an income increase that substantial under the AG's option. *Id.* at 20-21.

The AG asserts that the same holds true for low-income customers. In Schedule RDC-6 (page 2 of 2), by 2030, more than 30,000 low-income natural gas households would require an income increase of 200% or more simply to keep the bill increases associated with the gas main replacement program affordable. Under the AG's proposal,

17,800 low-income customers would require an increase in income that high to keep the bill increases affordable. *Id.* at 21.

The AG states that it is unrealistic for Peoples Gas – and the Commission – to expect the income increases required for First Quintile households to maintain the status quo of affordability in light of the proposed gas main replacement program. As Mr. Colton explained, First Quintile customer incomes in Chicago are not going to earn three-, four-, five- or ten-fold income increases by the years 2030 or 2040 that would be necessary to afford PGL's steady stream of rate increases that the AMRP program will require. If the gas main replacement program experiences even modest increases in costs over those costs which are now projected, the affordability impacts will be substantially and qualitatively worse. *Id.* at 27.

The AG next contends that existing low-income assistance programs are insufficient in making Peoples Gas's utility service affordable. The AG states that the Commission must consider the current, immense need for customer assistance funds through LIHEAP as part of its deliberations in this docket. While LIHEAP provides block grant funds to states to address home heating and cooling costs, funding does not expand simply because the need expands, either in terms of number of households in need or the level of grant required on a per-household basis. *Id.* at 22.

In fact, the AG explains, LIHEAP is not an adequate response to the increase in inability-to-pay, and the accompanying hardships, resulting from the Company's proposed gas main replacement program. Not only is LIHEAP insufficient to serve all income eligible customers, but it is becoming less sufficient each year. According to PGL, even with substantial influxes of state funding to supplement the federal program, LIHEAP dollars received by Company customers, as well as the numbers of the Company's customers receiving LIHEAP, have seen substantial declines in recent years. The number of Peoples Gas LIHEAP recipients has declined from 76,489 in 2013 (*Id.* at 23, footnote 9) to 63,625 in 2017, a decline of 12,900 recipients (17%). The total federal LIHEAP dollars received by Peoples Gas has declined from \$36,291,603 in 2013 to \$22,769,182 in 2017, a decline of \$13.5 million (37.2%). *Id.* at 22-23.

The AG adds that on a statewide basis, the LIHEAP allocation to Illinois has declined from a total of \$185,684,000 in 2013 to \$148,883,000 in 2016. That translates into fewer dollars available to assist a growing low income population within the Company's service territory. *Id.* at 23.

The AG points out that while more than 221,000 PGL customers are LIHEAP eligible, only 63,625 customers in 2017, or less than 30% of those eligible, received LIHEAP assistance. AG Ex. 8.0 at 9. Not only is LIHEAP unavailable to some 70% of PGL's LIHEAP-eligible customers, the average LIHEAP benefit that each recipient over the last four years has received has declined by 25% as well, dropping from \$474 in 2013 to \$358 in 2017. *Id.* at 11.

The AG stated that story is similar with respect to PIPP. PIPP, which is administered by Illinois utilities, is insufficient to meet the immense need for utility payment assistance. Under PIPP, income-qualified utility customers' home utility bills are set at an affordable percentage of income. The burden defined to be "affordable" for a

combined gas and electric bill is 6%. If a customer has an annual income of \$10,000, in other words, that customer would be provided home energy benefits to reduce the customer's out-of-pocket payment to no more than \$600 ($\$10,000 \times 0.06 = \600). One of the fundamental sources of funding to pay the PIPP benefits is LIHEAP. Accordingly, for the same reasons that LIHEAP would be inadequate on a stand-alone basis, the PIPP, which relies on LIHEAP, is also inadequate. AG Ex. 5.0R at 23-24.

Second, according to the AG, under the Illinois PIPP statute, ratepayer funding for the PIPP is capped. *Id.* at 24. Accordingly, to the extent that the Company's residential bills substantially increase, the ratepayer funding for PIPP will become increasingly insufficient.

Third, the Illinois PIPP imposes an annual ceiling on the amount of benefits that any given participating household may receive. *Id.* To the extent that Peoples Gas bills substantially increase, the likelihood of a PIPP participant reaching that benefit ceiling increase as well.

Finally, just as LIHEAP is insufficient to respond to affordability issues given its income-eligibility limits, there are customers who will face unaffordable bills even though they cannot be considered sufficiently "low-income" to qualify for PIPP. In other words, not all customers who will face affordability problems will be income-qualified for PIPP. *Id.*

The AG notes that the Company's "Share the Warmth Program" serves, at most, a few thousand customers and distributes a few hundred thousand dollars of benefits each year. The *decline* in Federal LIHEAP basic cash grants to Peoples Gas customers from 2013 through 2017, for example, was more than \$13.5 million, while the *total* Share the Warmth budget in 2016 was \$624,585. The decline in LIHEAP Crisis grants to PGL customers from 2013 to 2016 was an additional nearly \$2 million. The decline in the number of LIHEAP basic cash grant recipients from 2013 to 2017 was nearly 13,000 Company customers, while Share the Warmth provided grants to a total of 4,173 customers. Not only is Share the Warmth not sufficient to fill the gap caused by LIHEAP's decline, but Share the Warmth has not increased as LIHEAP has decreased. *Id.* at 25.

The AG points out that Peoples Gas does not know either how many LIHEAP Crisis applications or how many Share the Warmth applications were denied due to a lack of funding. The Company does acknowledge, however, that:

- ▶ The LIHEAP Crisis "program is administered by CEDA which continues to take applications until funds are unavailable or until May 31." *Id.*
- ▶ The Share the Warmth "program is administered until annual funds are depleted. If funding is exhausted, applications do not continue to be processed." *Id.*

The AG argues that any reference to customer assistance programs by the Company as a mean for addressing the unaffordability of the PGL rolling three-year AMRP plan is not supported by fact. Despite its own specific reference to LIHEAP as an available resource, the PGL refused to explain its understanding of how LIHEAP dollars are allocated to the various states, including Illinois. The assertion that LIHEAP might increase to help offset the adverse impacts of increasing bills attributable to the

Company's gas main replacement program represents a disturbing lack of understanding of the operation of this federal bill assistance program. As Mr. Colton points out, even if LIHEAP were, in the best of worlds, adequate to address affordability, it would become less so as the Company's bills increase as a result of the SMP.

The AG states that one additional point must be made about the ability of LIHEAP to address PGL customers' inability to afford monthly bills and the proposed SMP in particular. LIHEAP funding is subject to Congressional modification and Presidential veto. The fact is that the President has proposed to fund LIHEAP at \$0. If LIHEAP is unfunded by Congress as the President has proposed, Illinois would receive \$0 in federal LIHEAP support and the Company's customers would thus receive \$0 in federal LIHEAP funds. The Company's customers, in other words, would not only fail to receive any increased federal LIHEAP funding to help pay increased bills caused by the gas main replacement program, but the \$22.8 million in federal funding distributed to 63,625 low-income customers in the most recent year would disappear as well. *Id.* at 26-27.

The AG asserts that in a purported attempt to respond to Mr. Colton's testimony, the Company in its rebuttal testimony offered flimsy arguments to suggest bill increases associated with the AMRP/SMP would be addressed by PGL. First, PGL witness Debra Egelhoff pointed out that the Company has committed to make additional investment in energy efficiency programs targeted at customers whose income falls at or below 80% are equally flawed. PGL Ex. 9.0 at 8-9. But this 80% AMI income benchmark is substantially higher than the low-income population incomes discussed above. As Mr. Colton noted, on a citywide basis, programs targeted at this income level the average income for households falling in the bottom quintile of income in 2015 (one-year data) was \$9,156. At the average household size of 2.57 persons per household, 100% of Poverty Level would be \$18,301. The average income for Chicago residents in the First Quintile, in other words, is almost precisely 50% of Federal Poverty Level. AG Ex. 8.0 at 3-4.

The AG states that those amounts are strikingly lower than income that qualifies as 80% of Area Median Income ("AMI") as published annually by the U.S. Department of Housing and Urban Development ("HUD"). As explained by Mr. Colton, AMI is differentiated by household size. The AG asserts that accordingly, the PGL low-income energy efficiency program investment is directed towards a population that includes households with incomes of up to four to six times higher than the low-income population Mr. Colton assessed.

The AG adds that the level of poverty within the City of Chicago, PGL's service territory, is significant. The AG avers that while the Company noted that it is increasing its financial allocation to low income programs within its Section 8-104 of the PUA customer-funded energy efficiency programs, that amount will in no way address the immense need for financial assistance for Peoples Gas's low income customers. Mr. Colton demonstrated that even if one could reduce all low income total natural gas bills under the Company's AMRP proposal by 20% – an exceedingly unrealistic and optimistic assumption given the number of households within PGL's service territory that qualify as low income and what is known about probable savings in customer bills from energy efficiency investments – the resulting total bills would require incomes that significantly

exceed average incomes in Census tracts that reveal the existence of deep, entrenched poverty. *Id.* at 6-8.

The AG asserts that Peoples Gas' claim that because it does not maintain customer income data in any form, including by census tract, it is impossible to know the extent of correlation between census tract data and customer data (PGL Ex. 9.0 at 10-11) is a red herring. In fact, PGL witnesses offered no evidence that this data is *not* a relevant basis to analyze PGL bill affordability. The fact is, PGL's service geographic service territory solely comprises the geographic area known as the City of Chicago. The data analyzed by Mr. Colton is reasonably representative of PGL's customer base – a fact no witness convincingly challenged.

The AG also addresses PGL witness Egelhoff's complaint that "many of Mr. Colton's assertions presume that all customers use gas for space heating" ignoring the customers in PGL service territory who are non-heating customers. *Id.* at 11. Mr. Colton explained that two lines of analysis lead him to the conclusion that the Census tract data reasonably represents PGL's customers. First, the Census reports how many housing units in a geographic area use particular fuels as their primary heating fuel. In Chicago, 443 of the 793 Census tracts (56%), representing roughly half of all housing units, report that 90% or more of their housing units heat with natural gas. An additional 193 Census tracts (24%), representing 240,000 more housing units (23%), are tracts in which between 80% and 90% of the housing units heat with natural gas. An additional 110 Census tracts, representing 170,000 housing units, are tracts in which between 60% and 80% of the housing units heat with gas. In sum, the Census tract data is reasonably representative of natural gas customers because a wide majority of housing units in these Census tracts use natural gas as their primary heating fuel. In contrast, fewer than 50 of the 793 Census tracts have less than 60% of their housing units heating with natural gas and only eight (8) of the 793 Census tracts have 40% or less of their units heating with natural gas. Given these numbers, it is reasonable to conclude that Census tract income data reasonably reflects natural gas users. AG Ex. 8.0 at 13.

Moreover, the AG points out that Mr. Colton testified that in presenting Census data in his direct testimony, he reduced the total population figures to account for the fact that not all housing units or households heat with natural gas. AG Ex. 8.0 at 15. The AG argues that the Company offers no alternative set of data to measure and analyze the impact on affordability of the PGL SMP proposal based on customer demographics. Mr. Colton's analysis represents the best and, indeed, the only analysis of customer affordability based on the demographics of the PGL service territory.

The AG responds to PGL witness Therrien's testimony that affordability is already incorporated into the design and execution of its SMP, and through the Commission's accounting and prudence reviews in annual QIP reconciliation proceedings. He argues that by extending the previous 2030 completion date to 2035-2040, annual bill impacts will be lowered. PGL Ex. 8.0 at 18. Mr. Therrien's statement is less than compelling. The testimony of both Mr. Coppola and Mr. Colton make clear that the PGL-recommended completion date will set rates on an upward trajectory that that thousands of customers will find unaffordable.

Mr. Therrien's claim that Mr. Colton's affordability and public health and safety analysis is unrelated to the Company's SMP "or the Commission's obligations" (*Id.* at 16) especially specious. Again, the Colton analysis relates to the affordability impacts of the scope and timing of the SMP which is implicated by several provisions of the Act.

- ▶ [T]he policy of the State [is] that public utilities shall continue to be regulated effectively and comprehensively. It is further declared that the goals and objectives of such regulation shall be to *ensure*. . . That (i) the *public health, safety and welfare shall be protected*." (220 ILCS 5/1-102(d)(i)) (emphasis added). The reference to the "public health, safety and welfare" differs from any examination of reliability, the issue upon which Mr. Therrien seeks to focus. Indeed, the statutory obligations regarding reliability are enumerated in an entirely different section of the statute.
- ▶ A utility's reliability obligations are not absolute. The Act provides that "suppliers of public utility services are able to provide service at varying levels of economic reliability *giving appropriate consideration to . . . the costs of increasing or maintaining current levels of reliability* consistent with commitments to consumers." (220 ILCS 5/1-102(c)) (emphasis added).
- ▶ A utility's obligations include the obligation that "the rates for utility services are affordable and therefore *preserve the availability of such services to all citizens*." (220 ILCS 5/1-102(d)(viii)) (emphasis added). In this proceeding, PGL generally, and Mr. Therrien in particular, have declined to even consider whether the rates resulting from the Company's gas main replacement proposal "are affordable and *therefore* preserve the availability of such services to all citizens."
- ▶ A utility's rates shall be just and reasonable. 220 ILCS 5/9-101.

Mr. Therrien's statement that Mr. Colton's assessment of affordability is "completely unrelated" to the Company's statutory obligations is belied by the Act.

The AG adds that Mr. Therrien neglects to mention that in its March 1, 2017 Order Directing Additional Hearings, the Commission stated that the parties were to address certain questions, including "[a]re there public safety concerns associated with reduced affordability of gas service?" Staff Report at 64. Contrary to Mr. Therrien's assertion, the Commission has already concluded that it has an obligation to address the public safety concerns addressed in Mr. Colton's testimony.

The AG asserts that Mr. Therrien also offered criticisms that are simply untrue. He argued that Mr. Colton's analysis "assumes that incomes will not increase at all – even in nominal terms – over the forecast period." PGL Ex. 8.0 at 21. As noted by Mr. Colton, at no point in his testimony did he assert that incomes will not increase at all (even in nominal terms) over the forecast period. His testimony reaches a more basic conclusion: that it is unreasonable for the Commission or PGL to expect that incomes will increase by the percentages needed to maintain affordability at current levels. AG Ex. 8.0 at 24.

The AG observes that PGL witness Therrien also wrongly claimed that Mr. Colton's testimony asserts that there must be no rate impact in order for ratepayers to be "held

harmless.” PGL Ex. 8.0 at 22. In fact, Mr. Colton explicitly acknowledged that rate increases will occur, wherein he states that one purpose of his testimony is to “examine the capacity of the ratepayers of [Peoples Gas]. . . to absorb increased costs associated with the Company’s proposed gas main replacement program.” He explains that will “examine whether residents of Chicago, which comprise the Company’s customer base, have the financial capacity to absorb substantial bill increases to support the Company’s preferred version of its gas main replacement program” and “the ability of households to pay additional costs” AG Ex. 5.0R at 3. Mr. Therrien’s argument is baseless.

In conclusion, the AG was the only party to submit detailed testimony on the affordability of both the PGL-proposed SMP and the AG \$130 million annual spend alternative based on the demographics of the customers within the City of Chicago, PGL’s service territory. That evidence clearly showed that affordability problems arising from PGL’s gas main replacement program will have have substantial impacts on Chicago’s low- and median-income populations. No party offered any evidence or arguments – compelling or otherwise – that challenged the AG’s analysis.

(iv) CUB’s Position

CUB maintains that there can be no doubt – and the record clearly demonstrates that as investments under PGL’s SMP continue, natural gas service will become increasingly unaffordable for many City residents, the effects of which neither PGL nor Staff have adequately considered. CUB avers that AG witness Colton presented a dire picture of the rate impacts of the SMP, as well as total bills, on City residents. Unlike the total population for the City of Chicago (measured by median income), CUB notes that Mr. Colton’s analysis shows that the quintile of households with the lowest incomes (*i.e.*, the First Quintile) has not seen its economic conditions improve between 2011 and 2015. AG Ex. 5.0R at 15. More specifically, Mr. Colton’s demographic analysis of the City shows that in 360 out of a total of 793 Census tracts median income declined from 2011 to 2015, with those tracts disproportionately affecting African-American areas. *Id.* at 12-13. Further, says CUB, the low income population is substantial and growing. *Id.* at 15-16. CUB concludes that the evidence demonstrates that not only is the first quintile of income having particular difficulty with affording the costs associated with the Company’s gas main replacement program, it is equally important to acknowledge that this population is getting bigger rather than smaller. *Id.* at 16.

CUB points to data presented by Mr. Colton that demonstrates that low-income assistance dollars do not even begin to address the total affordability problems. *Id.* at 22. CUB agrees with this analysis and the fact that, when the funds run out in any given federal fiscal year, the state is required to stop distributing funds. *Id.* Funding, in other words says CUB, does not expand simply because the need expands. Because a primary source of funding for the PIPP program is also LIHEAP, CUB maintains that the same limitations apply. *Id.* at 24.

CUB affirms that Mr. Colton’s testimony puts a face on the issue of affordability of steadily and dramatically increasing natural gas bills for City residents. CUB concludes that the Commission must consider this evidence in evaluating the most appropriate end date for the program, which argues strongly for extending that date to mitigate these substantial rate impacts. According to CUB, this evidence further supports Commission

scrutiny of costs incurred under Rider QIP in the annual reconciliation proceedings to ensure PGL is held accountable for its claim of positive trends in program efficiencies. PGL Ex. 11.0 at 14.

CUB agrees with the City that “rate affordability should be an important factor in determining the annual SMP budget, and the duration of PGL’s SMP program.” As PGL acknowledged, states CUB, there is no formula for determining the optimum balance between containing the total cost and moderating the incremental rate impacts of the project. However, CUB contends that the Commission must exercise its discretion in this docket to mitigate the severe rate impacts that the record shows will harm many of PGL’s customers, if PGL’s current pace of implementation continues.

CUB also concurs with the City and the AG that the higher bills resulting from the quickly accelerating rate impacts associated with SMP are likely to cause additional disconnections from gas utility service, the effect of which has significant public safety implications that cannot be ignored by the Commission in assessing the issues of safety and affordability. CUB agrees with the AG that existing low income grant funds cannot close the gap between the rapidly rising costs of gas service and the inability of many City residents to afford to stay connected to it. Thus, CUB believes the evidence demonstrates that many PGL’s customers will be facing unaffordable rates under PGL’s proposed annual SMP spend. CUB suggests that the Commission could direct PGL to extend the end date of the program to mitigate these rate effects in this docket, which could later be validated by the updated engineering analysis.

(v) Commission Analysis and Conclusion

The Commission is concerned about the extent to which the SMP as approved in this Order will affect customer rates. Based on the information provided in the record and during Phase II of this proceeding, the Commission finds that affordability must be studied and considered as the program continues. The information provided by Peoples Gas focuses on the costs of the SMP and the overall impact related to this portion of a customer’s bill. However, a customer must pay the entire bill and not just for the upgrades to the system. The AG presented analysis showing that the cost of the program will be significant for all of Peoples Gas’ customers during the implementation of this program. The Commission finds that, given the size, scale, and complexity of the SMP, Peoples Gas must balance bill impacts and overall cost with other interests, such as safety, efficiency, customer satisfaction, and coordination with third parties in ensuring that rates remain affordable for customers. Since the SMP is still in the developmental stages and will be ongoing for a long period of time, it is difficult to determine at this point whether the rate impacts provided by the Company or those provided by the AG will be more accurate. Staff points out that an important issue such as this cannot be properly evaluated in this docket. The Commission agrees with Staff’s recommendation that the Commission will have to continue to closely monitor rate impacts and affordability going forward.

The Commission notes as well that Staff provided a detailed analysis that the Commission cannot legally substitute a Commission defined cap on Peoples Gas’ recovery of SMP costs under Rider QIP that is different from the statutory maximum authorized by Section 9-220.3 of the PUA. Section 9-220.3 does not authorize the Commission to establish an alternative level of rate recovery. However, as the QIP

restatement of the prudence and reasonableness criteria for rate recovery shows, there is a difference between setting a different cap and otherwise authorized regulatory or ratemaking decisions that may affect utility investment and recovery.

Section 9-220.3 does not displace the Commission's fundamental regulatory (including ratemaking) authority. The QIP provision restates the Commission's duty to assure only recovery of only prudent and reasonable investment costs. The QIP provision also does not purport to displace the Commission's Article VIII authority to determine necessary and convenient utility plant additions. Provided they are otherwise valid, such Article VII or Article IX determinations can have the effect of reducing QIP recovery, without compromising the provision or its statutory cap.

d. What is the risk of increase in uncollectibles as rates increase?

(i) Peoples Gas' Position

Peoples Gas explains that it does not anticipate that SMP capital spending will lead to an increase in uncollectibles expense as a percentage of the Company's revenue requirement. PGL Ex. 5.0 at 52. In part this is because uncollectibles are affected by many factors other than simply the Company's revenue requirement, including commodities prices (principally the price of natural gas), weather, arrearage practices and macroeconomic trends. *Id.*; Tr. at 695. Isolating the effect of any one factor is not feasible. Of course, the Commission will continue to have the opportunity to scrutinize Peoples Gas' uncollectibles in rate proceedings.

(ii) Staff's Position

Please see Staff's discussion to V.B.5.b, above.

(iii) AG's Position

The AG's discussion of this issue is included in Section V.5.c above.

(iv) CUB's Position

CUB points out that AG witness Colton also addressed the problems with unpaid bills, arrearages and uncollectibles. The data presented by Mr. Colton, says CUB, demonstrates that the impact of increasing bills will be to increase both the incidence of arrears (*i.e.*, number of accounts in arrears) and the magnitude of arrears (*i.e.*, the level of arrears). *Id.* at 29. According to CUB, Mr. Colton also observed that deferred payment arrangements ("DPAs") are not adequately available to help retire those arrearages, because fewer customers are entering into DPAs than have historically occurred, and fewer of those who do are able to successfully complete those DPAs. *Id.* at 33. *Id.* CUB maintains that these increased arrearages are associated with higher bills that will result from the SMP. *Id.* CUB concludes that this data further sheds light on the affordability concerns with the current pace and cost of the proposed SMP.

(v) Commission Analysis and Conclusion

The Commission notes that the Company does not anticipate that the SMP project will lead to an increase in uncollectibles. Peoples Gas points out that uncollectibles are

caused by many factors. The Commission will continue to monitor the overall cost and how it affects the bills of People Gas' customers, including uncollectibles.

e. What is the appropriate consideration of principles of cost causation and cost of service in establishing rates?

(i) Peoples Gas' Position

Peoples Gas explains that principles of cost causation and cost of service are not properly before the Commission in this proceeding. In any event, Peoples Gas proposes -- and the Commission approves -- rates that are based on principles of cost causation and cost of service. The Rider QIP surcharge is no exception; it is consistent with these principles.

(ii) Staff's Position

The General Assembly's findings in enacting the PUA and subsequent amendments to it provide guidance on this question. While the cost of supplying public utility service is to be allocated to those who cause the costs to be incurred (220 ILCS 5/1-102(d)(iii)), the PUA allows the Commission to consider other factors besides cost of service in its rate decisions, provided that the Commission sets forth its rationale for doing so. 220 ILCS 5/1-102 (d)(iv). However, it should be noted that legislative findings are typically considered prefatory language, and "generally ... not regarded as being an operative part of statutory enactments." *Governor's Office of Consumer Services v. Ill. Commerce Comm'n*, 220 Ill. App. 3d 68, 74 (3d Dist. 1991), citing *Ill. Independent Telephone Association v. Ill. Commerce Comm'n*, 183 Ill. App. 3d 220 (4th Dist. 1988). Accordingly, while such prefatory provisions can inform Commission interpretation of operative provisions, they cannot do more.

(iii) Commission Analysis and Conclusion

The Commission makes no findings regarding cost causation and cost of service as they relate to Peoples Gas' rates. Peoples Gas rate cases are the proper forum for such determinations.

f. What is the appropriate balance between lower annual rate impacts and total customer impact over the life of the project?

(i) Peoples Gas' Position

Peoples Gas explains that it is axiomatic that in a project such as the SMP, lowering spending in the early years of the project will increase the total cost of the project and cause it to take longer to complete. There is no formula for determining the optimum balance between these variables. The lodestar for such a determination must be system safety. By determining that the limit for program completion should be 2035 to 2040, Peoples Gas has designed its spending under the three-year plan to allow it to reach that goal. See *also* Peoples Gas' discussion of this issue in Section V.B.5.c., above.

(ii) Staff's Position

All parties acknowledge the SMP will have an impact on customer bills. However, the true extent of the impact over the life of the project is unknown and currently unknowable. The AG presents detailed information on the potential impacts of the SMP and, suggests that "Peoples Gas's aggressive capital investment program along with increase in the other bill components will cause the average heating customer's bill to approximately double in the 21 years from 2016 through 2037 and to almost triple from 2016 levels to 2045." However, the AG's prediction that rates will double or even triple is based on the assumption that Peoples Gas will continue to spend at currently authorized levels through the duration of the program, approximately \$304 million per year, escalated at 3% annually (*Id.* at 50) and there are reasons to assume that this assumption is unsound.

First, Section 9-220.3, the Rider QIP law which sets the maximum allowable annual expenditure, will, without further action by the General Assembly, be repealed by operation of law on December 31, 2023. The AG, however, assumes that Section 9-220.3 will remain in effect for years thereafter. It is unreasonable to assume with certainty that Section 9-220.3 will be reenacted in its current form. Whether Section 9-220.3 is reenacted and, if it is, what levels of cost recovery will be allowed in the reenacted version, will have a significant impact on the amount Peoples Gas spends annually on the SMP and, in turn, on the level of rate increases for consumers. Until that information is certain - which it cannot be before 2023 - it is impossible to responsibly estimate the cumulative customer impact over the life of the SMP.

What is known with some degree of certainty is the amount by which the SMP will cause customer rates to increase while the statute remains in effect. The plain language of the Section 9-220.3 sets the limit for annual spending on QIP projects in general and SMP in specific and, as discussed in more detail in Section V.C.5, below, the Commission cannot prohibit such spending while the statute is in effect. That is not to say, however, that the Commission should not be cognizant of the customer rate increases that are likely to occur. In fact, it is Staff's recommendation that the Commission should take proactive measures to ensure that accurate and comprehensive data is compiled on customer rate impacts, so that the General Assembly will have all relevant information to consider the impact of SMP on customer rates when debating a future version of Section 9-220.3 in 2023. This recommendation is discussed in more detail in Section IX.A, below.

(iii) AG's Position

The AG's discussion of this issue is included in Section V.5.c above.

(iv) Commission Analysis and Conclusion

The Commission agrees with Staff that it is difficult to determine the overall impact of the SMP now and over the life of the project. Peoples Gas must balance rate impact with safety and reliability needs. Extending the end date of the program could increase the overall costs in the long run. While the Company states that it is balancing rate impacts with the other program interests, Peoples Gas should be mindful of how rate impacts are affecting customer affordability.

C. Regulatory Cost Recovery Mechanisms

1. Peoples Gas' Position

Peoples Gas explains that, in 2013, the General Assembly passed legislation encouraging utility system improvement, pursuant to Illinois Public Act 98-0057. The legislation, which is now codified in Section 9-220.3 of the PUA, allows gas utilities to adopt a surcharge to recover a return of and on qualifying investments in their systems. PGL Ex. 1.0R at 28. The Commission has also adopted rules to implement Section 9-220.3 of the PUA. PGL Ex. 1.0R at 28, 83 Ill. Admin. Code 556. Pursuant to Illinois law and in accordance with the Commission's rules, in 2014 Peoples Gas adopted Rider QIP, which governs the recovery of its system modernization investment and other capital work.

Peoples Gas claims that it has sought and will continue to seek recovery of SMP costs under Rider QIP. Rider QIP requires annual reconciliation proceedings in which the Commission and all other interested parties examine capital expenditures for reasonableness and prudence. Peoples Gas states that decisions reached in this docket do not in any way prejudice whether SMP expenditures are reasonable and prudent. PGL Ex. 3.0R at 4. If such expenditures are found to be unreasonable or imprudent, Peoples Gas notes that it will not be allowed to recover them. *Id.*

Peoples Gas explains that Section 9-220.3 of the PUA, the Commission's rules, and Rider QIP limit the amount of investment that the Company can recover through the rider in a single year. PGL Ex. 1.0R at 29. Section 9-220.3 provides that the annual increase relative to a utility's base rate revenues may not exceed 4% on average or 5.5% in any given year. PGL Ex. 3.0R at 4. Peoples Gas has been well below these rate caps since Rider QIP's inception in 2014. *Id.* Nevertheless, the AG argues that Peoples Gas is "setting SMP budgets based on [the Rider QIP] spending cap." AG Ex. 2.0R at 27. However, Peoples Gas witness Hesselbach made clear in his rebuttal testimony that "the cost recovery mechanism should not be, and is not, a primary factor in determining or designing the scope of the...SMP or performing necessary capital projects." PGL Ex. 2.0R at 4.

2. Staff's Position

Staff concludes that based on Mr. Hesselbach's testimony, the Company's extensive references to Rider QIP suggest an over-reliance on the cost-recovery mechanism in the design and description of the system modernization program. Staff Ex. 3.0 at 4. Staff recommends the Company assure the Commission that program design focuses on the timely replacement of at-risk facilities, and not on the cost-recovery mechanism. *Id.* Mr. Hesselbach, in rebuttal testimony, agreed that the cost recovery mechanism is not and should not be a primary factor in program design. PGL Ex. 2.0R at 4.

Staff considers it important to note that most SMP costs will be recoverable under Rider QIP; however, Peoples Gas will likely incur other expenses unrelated to SMP that are recoverable under Rider QIP. Staff Ex. 2.0 at 6. Staff cites the examples of the PI/SI Program, High Pressure Installation Program, and Transmission Upgrades, which all include costs recoverable under the QIP Rider but are arguably not SMP costs. *Id.* An

example of an expense associated with the High Pressure Installation Program that arguably is part of the SMP is the installation of a high-pressure main that connects directly to a regulating station from which a medium pressure main supplies gas to Peoples Gas' distribution system. *Id.* An example of an expense associated with the High Pressure Installation program that arguably is not part of the SMP is the replacement of a high pressure transmission line for the sole reason of establishing Maximum Allowable Operating Pressure ("MAOP"), which in turn means the maximum pressure at which a pipeline or segment of a pipeline may be operated under Part 192 of federal pipeline safety regulations. 49 C.F.R. §192.3. Staff explains that Code Part 192 prescribes minimum federal safety standards for natural gas pipelines, 49 C.F.R. §192.1, and has been adopted by the Commission. 220 ILCS 20/3; 83 Ill. Adm. Code 590.10(a). *Id.* at 6-7.

Staff suggests the Commission's primary concern should be with SMP costs incurred in the replacement of leak-prone pipe, increasing pressure from low to medium, and moving meters from inside to outside, most of which will be incurred through the Neighborhood Replacement Program, which encompasses most of the legacy AMRP work. *Id.* at 7. While replacing leak-prone pipe, upgrading pressure and meter relocations are, generally speaking, costs recoverable under Rider QIP, there is an important distinction between SMP costs and other costs recoverable under Rider QIP with respect to effective Commission monitoring and oversight of the SMP. Peoples Gas' Proposed SMP includes costs such as those associated with transmission upgrades that, although recoverable under Rider QIP, are not properly SMP costs. In order for the Commission and stakeholders to effectively monitor the main replacement program in the long-term, Staff considers it essential that Peoples Gas include only SMP activities and costs in its plan, as well as related reporting. *Id.*

Staff recommends edits to PGL Exhibit 1.2, the description of the SMP, to remove references to Rider QIP. Staff Ex. 3.0 at 5-6. The Company's rebuttal testimony did not address these recommendations nor did it include a revised PGL Exhibit 1.2. Staff further recommends the Commission direct the Company to revise PGL Ex. 1.2 to remove references to Rider QIP, as recommended in Staff Exhibit 3.0 and as shown in Staff Exhibit 2.1, as a compliance filing.

3. AG's Position

Citing the direct testimony of Staff witness Beyer, the AG notes that Staff recommends that Peoples Gas "assure the Commission that program design focuses on the timely replacement of at-risk facilities, and not on the cost-recovery mechanism." Staff Ex. 3.0 at 4. Mr. Beyer testified that "Staff, however, strongly recommends that Peoples Gas avoid basing its design of SMP on its ability to recover the cost of specific projects under Rider QIP." *Id.* at 8. The AG further points out that when asked in discovery to explain how he developed this latter concern, Mr. Beyer responded by pointing to nine separate instances in Peoples Gas' direct testimony that seemed to indicate an inappropriate reliance by Peoples Gas upon the terms of Rider QIP cost recovery in developing its SMP plan. AG Cross Ex. 16 at 6-7.

The AG shares Staff's concern that the Company may be using Rider QIP cost recovery constraints to develop its annual work plans, rather than simply conducting the

minimum pace of replacement work necessary to ensure system safety. The AG urges the Commission to direct Peoples Gas to structure its MRP based strictly on system safety considerations, rather than burdening ratepayers with any more annual rate obligations than necessary. The AG does not object to Staff's proposal to modify PGL Exhibit 2.1 to remove references to Rider QIP. Staff Ex. 3.0 at 5-6; Staff Ex. 2.1.

The AG further notes that, while Peoples Gas suggests that its Rider QIP recoveries in 2014 and 2015 were "well below" the Section 9-220.3(g) rate impact cap (4% of base revenues on average and no more than 5.5% in a given year), citing figures of 0.72% and 2.17% for those years, it fails to state what will happen to those figures if investment goes forward indefinitely based on its three-year plan of investment or its proposed completion time frame of 2035-2040. Moreover, the Company failed to explain how those additional customer charges would remain affordable and least-cost for Peoples Gas customers.

The AG further observes that the growth from 0.72% to 2.17% in the first and second years of the Rider QIP program implies that the 4% average limit will soon be exceeded. Tr. at 112. The AG states that separate and apart from affordability issues, the Commission should be extremely cautious of authorizing capital spending that appears likely to exceed statutory rate caps. The AG urges that for these reasons, the Commission should adopt the AG's alternative investment plans.

4. City's Position

The City argues that Peoples Gas proposes that its annual Rider QIP accounting reconciliation proceeding serve as the Commission's sole vehicle for any future examination of Peoples Gas' SMP implementation and costs. Adapting the Rider QIP reconciliation process to that function would burden the regime of metrics and reports prescribed for those proceedings. According to Peoples Gas, the reconciliation process may not be adequate for an assessment of the Company's SMP implementation. The City argues that the combination of cost, prudence, and reasonableness determinations, plus operational efficiency reviews, ask too much of a process designed for accounting reconciliations.

The City also points out that the use of Rider QIP reports as the centerpiece of SMP reporting and review for the Commission was deemed wholly inadequate by Liberty in its Final Report. See City-CUB Ex. 1.5.

The City concludes that any attempt to make Rider QIP reconciliations proceedings viable for SMP review would require changes in the nature and scope of the existing SMP reporting protocols. The City recommends significant reporting changes even without consideration of the additions required to support performance and ratemaking reviews in the same annual proceeding.

5. Phase II

a. **What is the Commission's legal authority to limit the Company's recovery of SMP costs under Rider QIP to levels below those authorized by Section 9-220.3 of the PUA?**

(i) **Staff's Position**

Staff states that Section 9-220.3(d)(3) of the PUA provides that, in the course of Rider QIP reconciliations, the Commission "may make adjustments to ensure that the [statutory] limits ... [upon recovery] *are not exceeded.*" 220 ILCS 5/9-220.3(d)(3) (emphasis added). Nothing in the statute suggests that the Commission may reduce recovery levels below those mandate by statute, as the AG urges.

To be clear, the statutory cap in Section 9-220.3 applies only to QIP costs collected through a QIP Rider and the QIP rider is itself elective; a gas utility may, but need not, adopt a QIP surcharge and may, at its election, withdraw such a rider. See 220 ILCS 5/9-220.3(a)(1), (a)(4) (authorizing utility to adopt, withdraw surcharge tariff). Even where a company has a Commission-approved QIP rider in effect, it is not the only vehicle by which the company can recover SMP costs that are otherwise recoverable under QIP. While Section 9-220.3 provides for an expedited method of reconciling QIP costs, nothing in Section 9-220.3 prohibits a company from filing a general rate case pursuant to Section 9-201. In a general rate case, such a company could seek to recoup any and all SMP costs without limitation, subject only to a Commission determination that such costs were prudent and reasonably incurred. Even if the Commission were to impose a lower cap pursuant to Section 9-220.3, such a cap would not extend to recovery in a general rate case. The AG's arguments are therefore futile from the outset. The AG's arguments also ignore the plain language of the statute and rules of statutory construction, as discussed in detail in Section V.C.5.b. below, and therefore must be rejected.

b. **Does Section 9-220.3 preclude the Commission's authority to determine the scope, design, schedule, cost, and other issues related to an infrastructure project mandated under Sections 8-501 or 8-503?**

(i) **Peoples Gas' Position**

Peoples Gas explains that the Commission has broad authority to oversee utility activities and protect the public interest. Indeed, the PUA provides that the "Commerce Commission shall have general supervision of all public utilities, except as otherwise provided in this Act, shall inquire into the management of the business thereof and shall keep itself informed as to the manner and method in which the business is conducted." 220 ILCS 5/4-101. However, the Commission's authority is subject to limitations that may be established by the legislature, as indicated by the language "except as otherwise provided in this Act." *Id.*

One of those limitations is the QIP amendment to the PUA, Section 9-220.3, which was enacted in 2013 with supermajority support and was motivated by a compelling legislative interest in ensuring that the safety and reliability of natural gas mains would

not have to wait upon the outcome of the rate case process. In a desire to reduce regulatory lag and improve the safety of the natural gas delivery system as soon as possible, the legislature authorized Peoples Gas to recover its SMP investments via a rider, and removed any discretion the Commission might otherwise have had with regard to the form of the rider or the maximum amounts recoverable thereunder. For a full decade (2014-2023), the rider will enable Peoples Gas to focus on making the investments needed to improve the safety and reliability of its system while providing cost recovery through small adjustments to customers' bills. By legislative design, the Commission's role was to be limited to *mandatory* approval of any compliant rider submitted by Peoples Gas and reconciliation of the utility's collections with its rider-eligible costs thereafter.

Peoples Gas states that the urgency with which the legislature acted stands in stark contrast to the AG's position in this proceeding, which -- if adopted -- would override legislative intent and significantly delay completion of the SMP. The AG has asked the Commission to impose an annual SMP investment cap and to extend the SMP to 2050 or beyond, with no apparent concern for the safety and reliability concerns that so motivated the legislature in 2013. Nothing could be further from the legislature's intent in authorizing Rider QIP and establishing statutory caps below which critical infrastructure investments would be eligible for accelerated cost recovery.

The Commission should reject the AG's invitation to ignore an Illinois law enacted just four years ago to *protect* infrastructure investment from regulatory uncertainty. The AG avers that Section 9-220.3(g) sets only a maximum level of Rider QIP collections each year, and because the law does not set a minimum level of recovery the Commission is not precluded from setting lower recovery amounts in light of the PUA's other directives. The AG repeatedly claims that Peoples Gas should be bound to the same \$130 million in annual expenditures that it forecasted in 2009. In support of its position, the AG continues to suggest, with no specific evidence, that Peoples Gas sets its annual SMP expenditures to maximize WEC's shareholder value by increasing capital investment, rather than to improve the safety and reliability of the system. See, e.g., AG Ex. 4.0 at 9-10. The AG also argues that in light of the general statutory obligation to provide least-cost service, a lower cap is needed because the SMP is not the least-cost means of meeting service obligations.

The AG's argument is contrary to the plain language of Section 9-220.3, which limited the Commission's authority and established the amount of investment that Peoples Gas is authorized to recover from its customers to improve the safety and reliability of its system. Section 9-220.3 ("Natural gas surcharges authorized") allows Peoples Gas to recover—through the Rider QIP surcharge—its prudent costs of qualifying infrastructure investment ("QIP") in an amount not to exceed an annual average of 4% of its delivery base rate revenues since its most recent delivery service rate order (and not to exceed 5.5% in any given year). 220 ILCS 5/9-220.3(g). The AG's advocacy for a lower cap is precluded by this clear legislative mandate. Accordingly, the Commission's own Staff has stated that the Commission cannot limit Rider QIP recovery to a level lower than the maximum amounts set forth in the QIP amendment. See, e.g., Staff's Phase I Reply Br. at 8-15 ("Staff sees nothing in the statute which authorizes the

Commission to find that the statutorily defined limits on recovery are excessive, or to reduce them”). Likewise, the ALJ’s first Proposed Order in this docket rejected the AG’s position, adopting Staff’s legal argument that the Commission cannot legally limit the rider recovery of SMP costs to a level lower than the statutory caps. See Phase I Proposed Order at 43 (“Section 9-220.3 establishes the level of rate recovery for SMP and other capital work and does not authorize the Commission to establish an alternative level of rate recovery.”).

Peoples Gas explains that in May 2013, the Illinois legislature passed a bill allowing large gas utilities, including Peoples Gas, to recover investments in qualifying infrastructure plant through a rider mechanism. Senate Bill 2266 of the 98th General Assembly. The bill passed by unanimous consent in the Senate and with supermajority support in the House. In July 2013, the Governor signed the bill into law. Illinois Public Act 98-57.

The first section of the enacted law plainly states its purpose:

The General Assembly recognizes that for well over a century Illinois residents and businesses have relied on the natural gas utility system. The General Assembly finds that in order for a natural gas utility to provide safe, reliable, and affordable service to the State’s current and future utility customers, a utility must refurbish, rebuild, modernize, and expand its infrastructure...

Illinois Public Act 98-57, § 5-111(a). And the legislative history for the QIP law confirms what its preamble states: the “main purpose” of the legislation was to “encourage gas utilities to invest [in] their infrastructure in order to improve the safety and reliability of the system for their customers.” AG Ex. 2.3 at 3-4. The text of the law itself, which authorizes a rider to adjust rates outside the regular rate case process, demonstrates the legislature’s concern with reducing regulatory lag between the investment in needed main replacement and the recovery of corresponding costs. Legislators also considered the potential for the QIP law to create jobs and a strong business environment in Illinois. *Id.* at 5. As Peoples Gas discussed at length, Peoples Gas’ SMP meets each of these goals.

The law authorizes Peoples Gas to recover eligible costs through a surcharge, or rider, and directs Peoples Gas to seek Commission approval of that tariff. 220 ILCS 5/9-220.3(a). On September 19, 2013, Peoples Gas filed Rider QIP with the Commission and petitioned for its approval. On January 7, 2014, the Commission issued its order approving Rider QIP and, in doing so, found that it was consistent with the law. Docket 13-0534.

The law identifies the QIP investments that are eligible for rider recovery, including replacing cast iron and ductile iron pipe; relocating meters from outside to inside; and upgrading the system from low pressure to medium pressure. 220 ILCS 5/9-220.3(b). The law also lists some investments that are not eligible for rider recovery, including operations and maintenance costs and gas lines installed to serve new customers. 220 ILCS 5/9-220.3(c).

The law expressly provides the amount of prudent QIP investments Peoples Gas can recover via the rider in a single year. Specifically, Peoples Gas may recover *all* of its qualifying investments so long as the resulting annual increase relative to its base rate revenues does not exceed 4% on average or 5.5% in any given year. 220 ILCS 5/9-220.3(g). The Commission's rules and Rider QIP itself repeat these statutory amounts. 83 Ill. Admin. Code § 556.30(a). Peoples Gas has been well below the maximum annual amount since Rider QIP's inception in 2014. The average annual increases billed under Rider QIP as a percentage of base rate revenues were 0.72% in 2014, 2.17% in 2015 and 3.27% in 2016.

In addition to authorizing the recovery of QIP investments up to the statutory caps through a rider, the legislature granted the Commission authority to review the reasonableness and prudence of QIP investments on an annual basis. Specifically, the law directs Peoples Gas to file annual reconciliation cases in which the Commission and all other interested parties can examine QIP investments after they have been made and recovered through Rider QIP. 220 ILCS 5/9-220.3(e). There are currently three Rider QIP reconciliation cases pending before the Commission (Dockets 15-0209, 16-0197 and 17-0137).

Peoples Gas explains that Staff rejected the AG's suggestion that the Commission could override the legislature's authorization of Peoples Gas' recovery of its qualifying costs up to the defined maximum amounts. Staff explained that the QIP law provides for yearly *reconciliations* of amounts collected under the rider, subject to the Commission's confirmation that the Company's *investments* were reasonable and prudent. But nothing in the law authorizes the Commission to limit recovery based on unspecified "affordability" criteria, as advocated by the AG. In particular, Staff cited Section 9-220.3(d) of the PUA, which provides that "[a] natural gas utility *can* recover the costs of qualifying infrastructure investments through an approved surcharge tariff [i.e., Rider QIP, approved by the Commission pursuant to Section 220.3(e)] from the beginning of each calendar year subject to the reconciliation [provided for by law]." 220 ILCS 5/9-220.3(d) (emphasis added). To that end, Section 9-220.3(e) provides for yearly reconciliations of amounts collected under a utility's QIP tariff. In the case of any such reconciliation, the Commission "may make adjustments to ensure that the limits defined in . . . paragraph [d] are not *exceeded*." 220 ILCS 5/9-220.3(d)(3) (emphasis added). In short, Peoples Gas' *statutorily-authorized recovery* of its QIP investments under the rider is subject only to the statutory caps and the annual reconciliation, the purpose of which is to ensure that the investments are reasonable and prudent and that the statutory caps on recovery are not *exceeded*. See Staff's Phase I Reply Br. at 12 ("the statute, read as a whole, authorizes gas utilities to recover through a QIP tariff, subject to reconciliation, costs associated with the installation of certain enumerated categories of investment, provided that such recovery does not exceed statutorily-defined amounts").

Staff also confirmed that subject to these limitations, the Commission can prohibit Peoples Gas from recovering certain QIP investments if they are found to be unreasonable or imprudent. Again, however, in contrast to most areas of utility regulation, where the Commission has broad discretion, the Commission does not have the authority to second-guess the legislature by finding the law's cost recovery caps imprudent and

then lowering them. The AG's position that the Commission can reduce the amounts Peoples Gas is authorized to recover under Rider QIP would violate the long-held proposition that an administrative agency has only those powers conferred on it by statute. See *Sheffler v. Commonwealth Edison Co.*, 399 Ill. App. 3d 51, 60 (1st Dist. 2010) (Commission derives its power and authority solely from the statute creating it, and may not, by its own acts, extend its jurisdiction), *aff'd*, 2011 IL 110166, *and reh'g denied*; *Chemed Corp. v. State*, 186 Ill. App. 3d 402, 410 (4th Dist. 1989) ("Agency action which exceeds its authority is void"); see also Staff's Phase I Reply Br. at 11.

Notwithstanding these clear statutory limitations, the Commission still has an important role to play in reviewing QIP investments and related surcharges, and can do so *without* altering the statutory caps on QIP recovery. The Commission will continue to have general jurisdiction over the SMP. Peoples Gas will be providing very detailed reports on the SMP on a quarterly basis. Moreover, each year Peoples Gas must file a new Rider QIP reconciliation case, and the Commission and other parties will have the opportunity to present evidence on the reasonableness and prudence of those costs. The Commission's ongoing authority over these matters, and particularly its uncontested power to review QIP investments for reasonableness and prudence, ensures that Peoples Gas will only recover such investments as authorized by law.

As Staff has recognized, the Commission is bound to ascertain and give effect to the intent of the legislature. *Skaperdas v. County Casualty Ins. Co.*, 2015 IL 117021, ¶15 (2015). Just as a court must construe a statute as it is, and may not supply omissions, remedy defects, or add exceptions and limitations to the statute's application, regardless of its opinion regarding the desirability of the results of the statute's operation, *Toys "R" Us v. Adelman*, 215 Ill. App. 3d 561, 568 (3d Dist. 1991), so too an agency must apply the law as written. *Schalz v. McHenry Cty. Sheriff's Dep't Merit Comm'n*, 113 Ill. 2d 198, 205 (1986) (while an agency's authority may, by fair implication and intendment, be incident to the express authority conferred by the legislature, where the language of a statute is clear and unambiguous, the agency must apply the law as enacted). Here, for the reasons already explained by Staff and further discussed below, that means this Commission must reject the AG's invitation to override state law.

Staff might have added other canons of statutory interpretation that are also violated by the AG's proposal. For example, "[i]t is a fundamental rule of statutory construction that where there exists a general statutory provision and a specific statutory provision, either in the same or another act, which both relate to the same subject, the specific provision controls and should be applied." *People v. Villareal*, 152 Ill.2d 368, 379 (1992). Here, the provisions of Section 9-220.3 are clearly more specific than, and therefore control, the general provisions elsewhere in the PUA relied on by the AG. The AG would turn this canon on its head, invoking general statutory maxims to eliminate a specific directive from the legislature.

Peoples Gas explains that it agrees with Staff that "Section 9-220.3 establishes a level of rate recovery for SMP and other capital work and does not authorize the Commission to establish an alternative level of rate recovery." Nothing in the QIP law authorizes the Commission to reduce the amounts the legislature authorized Peoples Gas to recover. Instead, under the law's express and unambiguous terms, the Commission's

role is limited to two functions: (1) approving tariffs filed under the law, 220 ILCS 5/9-220.3(a); and (2) reviewing QIP investments for reasonableness, prudence and compliance with the tariff, 220 ILCS 5/9-220.3(e).

The first function -- tariff approval -- is narrowly circumscribed by the law, and the Commission has already discharged its duty to approve a tariff for Peoples Gas. A natural gas utility “may file a tariff for a surcharge which adjusts rates and charges to provide for recovery of costs associated with investments in qualifying infrastructure plant.” 220 ILCS 5/9-220.3(a)(1). Thereafter, “[t]he Commission shall issue an order approving, or approving with modification to ensure compliance with this Section, the tariff no later than 120 days after such filing of the tariffs filed pursuant to this section.” 220 ILCS 5/9-220.3(a)(3). Thus, if a utility elects to file a QIP tariff, the Commission is limited by law to one of two options: (1) “approving” the tariff or (2) “approving with modification,” but only “to ensure compliance with this Section.” In short, if a utility files a QIP tariff that complies with the law, the Commission is legally required to approve it. Here, the Commission has already executed that function in approving Rider QIP as filed by Peoples Gas. The statute leaves nothing more for the Commission to do on this point.

The second function -- reconciliation -- is likewise narrowly circumscribed. The law requires Peoples Gas to file periodic Information Sheets with supporting information on QIP investment and related adjustments. 220 ILCS 5/9-220.3(e)(1). And annually, the law requires Peoples Gas to petition for reconciliation of authorized surcharges with “the actual prudently incurred costs recoverable under this tariff in the preceding year.” 220 ILCS 5/9-220.3(e)(2).

The purpose of this reconciliation is expressly stated in the law: to ensure that amounts included in the surcharge were (1) actually incurred, (2) prudent, and (3) recoverable under the applicable Rider QIP tariff. Costs “recoverable under this tariff” (here, Peoples Gas’ Rider QIP tariff) are “costs associated with investments in qualifying infrastructure plant,” subject to the statutory caps. See 220 ILCS 5/9-220.3(a)(1) (authorizing tariff “to provide for recovery” of such costs); *id.* at (d)(3) (limiting the “amount of [QIP] eligible for recovery under the tariff” in a given year and providing that the utility “can recover” such costs through an approved surcharge tariff); *id.* at (g) (capping increases billed under the tariff). The reconciliation cases for 2014, 2015 and 2016 are currently pending, so the Commission is already exercising the only other authority allocated to it as relates to QIP cost recovery.

The AG conflates recovery of SMP costs *through Rider QIP* with recovery of those investments *at all*. As Peoples Gas noted at the outset of this argument, the Commission’s questions are limited to *how*, not *whether*, Peoples Gas may recover its SMP costs: the issue is whether rider treatment should be available to the full extent authorized by the legislature, or to some lesser extent. The AG offers *no* authority for the proposition that Peoples Gas cannot recover SMP costs *exceeding* the rider cap through the ordinary rate case process. To the contrary, there is *no* legislative authority permitting the Commission to impose a cap on SMP cost recovery in base rates before the costs are incurred.

When the legislature wants to impose a cap on cost recovery or authorize the Commission to do so, it has shown that it knows how to do so. For example, Section 8-

104(d) of the PUA limits the amount of energy efficiency a gas utility may implement to “an amount necessary to limit the estimated average increase in the amounts paid by retail customers in connection with natural gas service to no more than 2% in the applicable multi-year reporting period.” 220 ILCS 9/8-104(d). Similarly, Section 8-104(g) states that “[n]o more than 3% of expenditures on energy efficiency measures may be allocated for demonstration of breakthrough equipment and devices.” 220 ILCS 9/8-104(g). By contrast, the law (and its electric utility counterpart of Section 8-103) imposes no cap on administrative expenditures, and the Commission has rightly concluded it lacks authority to impose such a limit. *Commonwealth Edison Company*, Docket No. 10-0570, Order at 55-56 (Dec. 21, 2010).

Perhaps recognizing the illegality of her position that the Commission can reduce the amounts Peoples Gas can recover under the QIP statute, the AG tries a subtler approach, arguing that Section 9-220.3(d)(1) of the PUA (which identifies “improved public safety and reliability” as a legislative priority) authorizes the Commission to manage SMP scope and schedule. Specifically, the AG proposes stretching out the fixed amount of work needed to complete SMP, adjusting its end date from 2035 or 2040 to 2050 or beyond—with the natural corollary being a reduction in costs eligible for annual recovery via Rider QIP. The AG pairs this argument with references to the “least-cost service” requirement elsewhere in the PUA.

Peoples Gas explains that, as a threshold matter, the AG misunderstands the statutory requirement of “least-cost service.” As the Commission has held, it does not mean the “most simple, basic, and cheapest form” of service. *Commonwealth Edison Co.*, Docket No. 07-0566, Order at 137 (Sep. 10, 2008). “Least cost” also does not mean providing service for the fewest possible dollars. Rather, an examination of whether service is “least cost” “involves a comprehensive consideration and balancing of the overall costs and externalities against the benefits.” *Ameren Transmission Company of Illinois*, Docket No. 15-0278, Order at 22 (Nov. 12, 2015) (interpreting “least cost” in context of transmission line siting under Section 8-406); *see also Gernand v. Ill Commerce Comm’n*, 676 N.E.2d 1384, 1391 (Ill. App., 1997). Here, the externalities that must be considered include system safety and disturbance of the City streets. System safety weighs in favor of completing the work quickly, and focusing work on neighborhoods minimizes repeated disruption of the same streets — which necessarily would occur under the AG’s proffered approach to system modernization.

The AG’s argument that Peoples Gas’ proposed pace and annual spending for the SMP do not satisfy the statutory requirement that it provide “least cost” service is contrary to Illinois law. The AG has argued that “achieving least-cost service under Section 8-401 generally involves deferring replacement until absolutely necessary for safety.” Of course, determining when pipe replacement is “absolutely necessary for safety” is neither the simple exercise the AG suggests nor the appropriate legal test as the AG implies, apparently seeking to establish yet another new legal standard to guide future Commissions in judging the reasonableness and prudence of gas utility infrastructure investments. The AG’s interpretation of Section 8-401 also ignores that the section requires service to be adequate, efficient, reliable and environmentally safe; consistent with these obligations, the utility is to provide service that is the least cost means of

meeting these obligations. The question is one of engineering judgment, and Peoples Gas' engineers have determined that an end date in the range of 2035 to 2040 is compatible with public safety, informed by PHMSA's demands to accelerate replacement of at-risk main.

Moreover, the AG's emphasis on "least-cost" service is inconsistent with a proposal to add ten, fifteen, or more years to the life of the project. Again, the amount of work needed to complete the SMP is not going to change, but the costs certainly may over time. The AG fails to explain how adding fifteen-plus years of wage growth, increased cost of materials including plastic pipe and general inflation would serve either the "least-cost" standard or the citizens the AG is meant to represent.

Finally, and most fundamentally, the Commission should recognize this argument for what it is: just another request that the Commission impose limits on the amounts of SMP costs Peoples Gas is authorized *by statute* to recover through Rider QIP. Again, the Commission has clear authority to review SMP investments for reasonableness and prudence, but it may not use its general oversight authority to thwart the plain and specifically expressed intent of the legislature, which authorized Peoples Gas to incur and recover through a rider the costs of its current, more accelerated program up to certain levels — levels the legislature determined *already* strike the appropriate balance between safety and cost concerns. If it wishes to observe both the letter *and* the intent of Section 9-220.3, the Commission will reject the AG's invitation to second-guess the balance struck by the legislature or in any way alter the statutory caps on Rider QIP.

Peoples Gas explains that most recently the AG and City dodged the question of whether the Commission can reduce the amounts Peoples Gas can recover under the QIP law, preferring to focus on the Commission's alternative authority to determine SMP's scope, schedule and cost. It appears that all parties now agree the Commission cannot do what the AG originally asked it to do: cap Peoples Gas' Rider QIP recovery of SMP costs at \$137 million, \$150 million, or any other level below that authorized by law. But to the extent the AG and City are requesting the Commission structure the SMP's scope, schedule and cost in a way that would thwart the legislative intent behind the QIP law, their request must be denied.

Peoples Gas does not dispute any of the general regulatory powers delegated to the Commission under Illinois law: determining the reasonableness and prudence of planned investments, ensuring affordable utility rates for customers by requiring least-cost service subject to safety and reliability concerns and investigating and regulating public utilities. But the question here is whether the Commission may invoke those broad mandates to justify action that would be contrary to Rider QIP, which is a much more specific and narrow legislative mandate. For the reasons discussed below, it cannot.

The AG misunderstands the holdings of the authorities it relies upon. For example, the AG cites *Sheffler*, 353 Ill. Dec. 299 at ¶ 29 for the proposition that the Illinois Supreme Court has charged the Commission with ensuring "affordable" rates. Actually, the discussion in *Sheffler* focused on why it is appropriate for utility tariff provisions to contain limitations of liability: a regulated public utility's liability "should be defined and limited so that it may be able to provide service at reasonable rates, and reasonable rates depend in part on a rule limiting liability." *Id.* In explaining why public utilities should be protected

from litigation, the court in *Sheffler* was not issuing a free-standing mandate for “affordable” rates.

Similarly, while the Commission plainly has authority to order plant improvements under Sections 8-501 and 8-503 of the PUA, which is presumably why the Commission cited those provisions in its question, the AG is incorrect to read these provisions’ requirement of “adequacy” to impose a requirement of “affordability.” These sections say nothing about affordability, and if any other authority established that “adequacy” is somehow a synonym of “affordability,” the AG surely would have cited it.

Further, the AG’s proposition is illogical because the cited sections have little or nothing to do with setting rates. Section 8-501 lists a number of deficiencies that can be remedied by Commission order (“unjust, unreasonable, unsafe, improper, inadequate or insufficient”), and “unaffordable” is not one of them. Indeed, this section does not even mention rates. Instead, it authorizes the Commission to order plant improvements deemed necessary, presumably at customer expense. Likewise, Section 8-503 authorizes the Commission to order that a wide array of plant improvements “are necessary and ought reasonably to be made” or that “a new structure or structures is or are necessary and should be erected,” again presumably at customer expense. If anything, both of these sections authorize the Commission to take actions that would ultimately increase customer rates by ordering necessary plant improvements.

To be clear, Peoples Gas takes no issue with the proposition that affordability is something the Commission can and should consider. But the AG reaches too far in its attempts to co-opt unrelated authorities in support of this proposition, losing credibility in the process. The AG errs again in emphasizing affordability to the exclusion of other relevant factors. Those factors include all seven of the others listed in Section 1-102(d) of the PUA, the first of which is that “the public health, safety and welfare shall be protected.” 220 ILCS 5/102(d)(i); see also 220 ILCS 5/5-111(a) (listing safety and reliability before affordability); 220 ILCS 5/19-130 (same); 220 ILCS 5/8-401 (“least-cost means” required only to extent consistent with utility’s “obligations,” which are to provide “service and facilities which are in all respects adequate, efficient, reliable, and environmentally safe”).

The AG also ignores the fact that the legislature has specifically addressed affordability in the context of Rider QIP. This point is confirmed by the AG’s own discussion of the legislative history of Section 9-220.3, which discusses debate among legislators during which the bill’s sponsor assured his colleagues that the Rider QIP statute contained a “rate cap” meant to protect customers. However one interprets that history, it is clear the legislature was concerned with and clearly focused on the issue of affordability in passing this law. The AG now suggests that the legislature was confused about the amounts at issue. The AG suggests that “the Commission must make a factual inquiry into whether the legally binding rate caps contained in Section 9-220.3(g) are a useful guide to carrying out the Commission’s legal responsibility to ensure affordability.” But the AG knows full well that the Commission has no authority to contravene a duly enacted legislative mandate based on speculation about what individual legislators might have thought or understood—which is precisely why even the AG no longer argues for a Rider QIP cap contrary to law.

The same goes for the AG's related argument that in practice, the Rider QIP caps set by the legislature do not provide enough of a check on rider growth. Even if that were true (and it is not), it would not give the Commission authority to set a different cap of its own, and it does not give the Commission authority to accomplish the same end by other means.

Finally, the Commission should simply ignore the City and the AG remaining, distracting arguments. Peoples Gas has explained that no one has argued that: (1) the "ceiling" in Section 9-220.3 of the PUA is actually a "floor" for recovery; (2) that the law is somehow violated when Peoples Gas collects less via Rider QIP in a given year than the maximum amount authorized by the Rider; (3) that the Commission cannot alter Peoples Gas' SMP proposal "in any way that reduces QIP recovery;" or (4) that Section 9-220.3 "nullif[ies] core Commission ratemaking duties and authority." Peoples Gas understands and acknowledges that Section 9-220.3 itself contains eligibility limits for costs that may be recovered and that the Commission is empowered to review SMP investments (like any others) for reasonableness and prudence. But there can be no doubt that the AG and the City are inviting the Commission to use these general powers to circumvent a clear legislative mandate in the name of abstract constructs like "affordability." Peoples Gas explains that, like any other invitation to make an end-run around a duly enacted statute, the Commission should view this one with considerable skepticism and ultimately reject it.

(ii) Staff's Position

There is no direct conflict between Section 9-220.3 and Sections 8-501 and 8-503 of the PUA. Section 9-220.3 is part of Article IX of the PUA governing rates. Sections 8-501 and 8-503 are part of Article VIII of the PUA governing Service Obligations and Conditions. As a general matter, these Articles of the PUA address different subject matter (rates as opposed to service obligations) and therefore there is no conflict between the Articles. Moreover, Staff is not aware of the Commission ever finding a conflict between these two Articles of the PUA.

Further, nothing in the plain language of these sections states or even suggests that one section preempts the other. The goal of statutory construction is to ascertain and give effect to the legislature's intent. *Commonwealth Edison Co. v. Ill. Commerce Comm'n*, 2014 IL App (1st) 132011, ¶ 19. The best indicator of the legislature's intent is the language of the statute, which should be given its plain and ordinary meaning. *Id.* It is not permissible to depart from the plain language of the statute by reading into it exceptions, limitations, or conditions not expressed by the legislature. *Id.* ¶ 35. Further, where two statutes are thought to conflict, they must be interpreted in a manner which avoids inconsistency and gives both effect. *Ferguson v. McKenzie*, 202 Ill. 2d 304, 311–12 (2001). Neither Sections 9-220.3, 8-501 or 8-503 contains any language that suggests the sections pre-empt any other. Likewise, all three can be read in a manner that gives effect to each. Accordingly, no inconsistency should be found.

Finally, it is worthy of note that, where two statutes governing the same general subject matter are thought to conflict, the more specific should take precedence over the more general, and the more recently enacted over the less recent. *In re Jarquan B.*, 2016 IL App (1st) 161180, ¶23. Here, Sections 8-501 and 8-503, although each grants the

Commission broad authority, are general in nature. Section 8-501 authorizes the Commission to regulate, among other things, a utility's technical operations, facilities and plant. 220 ILCS 5/8-501. Section 8-503, likewise, authorizes the Commission to require utilities to make improvements, extensions or repairs to their plant and facilities. 220 ILCS 5/9-503. Section 8-501 has not been amended since the 84th General Assembly, which sat in 1985-86. See P.A. 84-617 (most recent amendment to Section 8-501). Section 8-503 was most recently amended in 2007. See P.A. 95-700 (most recent amendment to Section 8-503).

Section 9-220.3, in contrast, is by its clear terms very specific. Indeed, it describes in detail specific costs which may be recovered under a specific surcharge, the maximum amount of such costs which may be recovered, the terms required in a tariff which a gas utility may file to implement such a surcharge, and the procedure for Commission approval of such a tariff. See, *generally*, 220 ILCS 5/9-220.3. Section 9-220.3 is markedly more specific in its terms and requirements than either Section 8-501 or Section 8-503.

Further, Section 9-220.3 was enacted after both Section 8-501 and Section 8-503. Section 9-220.3 took effect on July 5, 2013. See P.A. 97-57 (amending the PUA to add Section 9-220.3). Accordingly, Section 9-220.3 takes precedence over either Section 8-501 or Section 8-503 in the event a conflict is found to exist.

The conclusion that should be drawn from this is that, while Sections 8-501, 8-503 and 9-220.3 do not conflict, if a conflict is determined to exist, Section 9-220.3 should apply, rather than Section 8-501 or 8-503.

Moreover, a statute must be considered and construed in its entirety, including the subject the statute addresses, and the apparent intent of the legislature in enacting the statute. *Hayashi v. Ill. Dept. of Financial and Professional Regulation*, 2014 IL 116023, ¶16 (2014). No part of the statute should be rendered meaningless or superfluous. *Skaperdas v. County Casualty Insurance Co.*, 2015 IL 117021, ¶15 (2015). Likewise, limitations and exceptions cannot be read into statutes where they do not exist. *Toys "R" Us v. Adelman*, 215 Ill. App. 3d 561, 568 (3d Dist. 1991).

The AG ignores these principles, and indeed much of the plain language of Section 9-220.3 in arguing that the Commission can and indeed must limit cost recovery under Rider QIP to something less than the statutorily-mandated amount. It urges the Commission to read non-existent limitations into Section 9-220.3, and to read clear, plain-language provisions out of it. Section 9-220.3 provides that a gas utility serving more than 700,000 customers "may file a tariff for a [QIP] surcharge[.]" 220 ILCS 5/9-220.3(a)(1). Once a utility eligible to do so files such a tariff, the Commission "shall issue an order approving, or approving with modification to ensure compliance with this Section, the tariff [filed by the gas utility] no later than 120 days" after the utility files its tariff. 220 ILCS 5/9-220.3(a)(3) (emphasis added). Significantly, the Commission is only authorized to approve the filed tariff, or approve it with modifications. The statute does not authorize the Commission to refuse to approve such a tariff outright.

Section 9-220.3(b) enumerates investments that are qualifying infrastructure plant eligible for cost recovery within the meaning of the statute. 220 ILCS 5/9-220.3(b). These investments include: (1) replacement of pipes fabricated from cast iron, wrought iron,

ductile iron, unprotected coated steel, unprotected bare steel or mechanically coupled steel; (2) relocation of meters outside customer facilities; (3) upgrading of facilities from low to medium pressure; (4) replacement of high-risk high-pressure transmission facilities; (5) replacing difficult-to-locate facilities; and (6) installation or replacement of transmission and distribution regulator stations, regulators, valves, and associated facilities. 220 ILCS 5/9-220(b)(1)–(3), (5)–(7). Further, Section 9-220.3(c) identifies certain costs and expenses that are explicitly *excluded* from QIP recovery, including operations and maintenance costs, and revenue producing facilities. 220 ILCS 5/9-220.3(c).

With respect to cost recovery, Section 9-220.3(d) provides that “[a] natural gas utility can recover the costs of qualifying infrastructure investments through an approved surcharge tariff from the beginning of each calendar year subject to the reconciliation [provided for by law].” 220 ILCS 5/9-220.3(d)(3). Section 9-220.3(e) provides for yearly reconciliations of amounts collected under a utility’s QIP tariff. In the course of any such reconciliation, the Commission “may make adjustments to ensure that the limits defined in ... paragraph [d] are not exceeded.” 220 ILCS 5/9-220.3(d)(3). Significantly, with respect to the rate increases authorized, Section 9-220.3(g) provides that “[t]he cumulative amount of increases billed under the [QIP] surcharge ... shall not exceed an annual average 4% of the utility’s delivery base rate revenues, but shall not exceed 5.5% in any given year.” 220 ILCS 5/9-220.3(g).

This limitation is reiterated in greater detail in subsection (d), which provides that:

The amount of [QIP] investment eligible for recovery under the tariff in the applicable calendar year is limited to the lesser of (i) the actual [QIP] placed in service in the applicable calendar year and (ii) the difference by which total plant additions in the applicable calendar year exceed the baseline amount, and subject to the [price cap] limitation in subsection (g) of this Section.

220 ILCS 5/9-220.3(d)(3). The Commission is authorized to “make adjustments [in reconciliation proceedings] to ensure that the[se] limits ... [upon recovery] *are not exceeded*.” *Id.* (emphasis added).

Nothing in the statute authorizes the Commission to make adjustments to cost recovery other than those authorized in reconciliation proceedings. *See, generally*, 220 ILCS 5/9-220.3. More specifically, nothing in the statute authorizes the Commission to limit recovery based on unspecified “affordability” criteria. Indeed, the words “affordable” and “affordability” are absent from Section 9-220.3.

On September 19, 2013, Peoples’ Gas submitted a QIP tariff under Section 9-220.3 for Commission approval. *See The Peoples Gas Light and Coke Company*, Docket No. 13-0534, Order at 1 (Jan. 7, 2014) (“Peoples QIP Tariff Order”). On January 7, 2014, the Commission approved the QIP tariff “as revised in response to Staff comments,” finding it to be “consistent with Section 9-220.3 of the Act and the Commission’s rules[]” as revised. Peoples QIP Tariff Order at 7.

The Commission-approved tariff was attached as Appendix A to the Peoples QIP Tariff Order. *See* Peoples QIP Tariff Order, Appendix A. The Commission-approved

tariff, designated Rider QIP, provides that “[t]he cumulative amount of increases billed under this rider, since the Company’s last rate case, shall not exceed an annual average 4% of the Company’s Base Rate Revenues but shall not exceed 5.5% in any given year.” Peoples QIP Tariff Order, Appendix A at 3. A Commission-approved tariff “is a law, not a contract, and has the force and effect of a statute.” *Sheffler*, 399 Ill. App. 3d at 61, *citing Adams v. N. Ill. Gas Co.*, 211 Ill.2d 32 (2004). Accordingly, the tariff governs, and authorizes Peoples Gas to recover up to the amount authorized. The AG’s argument must fail for this reason as well.

The AG further contends that the provision in Section 9-220.3(g) which states that “cumulative amount of increases billed under the [QIP] surcharge ... shall not exceed an annual average 4% of the utility’s delivery base rate revenues, but shall not exceed 5.5% in any given year[.]” authorizes the Commission to limit recovery under Section 9-220.3 and Rider QIP to some amount less than the statutory maximum. This assertion, for which the AG offers no authority, is baseless. Staff argues that nothing in the statute remotely suggests that the Commission is authorized to do this. The U.S. Supreme Court spoke to the construction of the similar phrase “not to exceed,” finding that an administrative agency was required to disburse all funds authorized and appropriated under a federal grant program, where such sums were described as “not to exceed” a certain figure. *Train v. City of New York*, 420 U.S. 35, 44-47 (1975).

Even were this not so, the structure of Section 9-220.3 demonstrates that there is no basis for the AG’s positions. As noted, filing of a QIP tariff by a gas company is discretionary, while approval of the tariff by the Commission is mandatory, provided that the tariff terms and conditions comply with the statute. Likewise, the statute describes in detail the specific projects for which costs are recoverable under the QIP tariff, and sets a maximum rate of recovery. While the Commission is authorized to “make adjustments to ensure that the limits ... [upon recovery] *are not exceeded*[.]” 220 ILCS 5/9-220.3(d)(3) (emphasis added), provisions authorizing the Commission to unilaterally *reduce* recovery are notably - and entirely - absent from the statute. Had the General Assembly intended that the Commission reduce recovery below statutory levels, it would have specifically authorized this, instead of empowering the Commission to make certain that statutory levels “[were] not exceeded[.]” The AG’s arguments to the contrary are nothing more than wishful thinking; they clearly cannot be reconciled with the plain language of the statute. Accordingly, its arguments must be entirely rejected.

The AG’s argument that the Commission can limit the scope of the SMP is simply wrong. Peoples Gas may lawfully undertake infrastructure projects falling within the definition of QIP, and recoup the costs of those projects up to the threshold outlined in Section 9-220.3(g). The AG suggests that “[n]othing in the Section 9-220.3(g) or elsewhere in the Act prohibits the Commission from directing a gas utility to pace an infrastructure investment program in a particular manner over the long term...resulting in annual recovery levels below the 9-220.3(g) caps... [.]” The AG’s reasoning is illogical. The AG acknowledges that Section 9-220.3(g) sets a maximum level of Rider QIP collections each year. *Id.* By dictating a program be paced at a rate such that the annual spend is something less than the statutory cap, the AG advocates indirect imposition of the same new, lower cap which would be clearly unlawful if done directly.

The City also argues that the Commission has the legal authority to modify the SMP. The City's arguments in this regard ignore the important distinction between the Commission's authority to take action to limit expenditures *before* costs are incurred, with the Commission's authority – indeed, obligation - to conduct annual QIP reconciliation proceedings to ensure that QIP expenses are prudently incurred. See 220 ILCS 5/9-220.3(e)(2) (Commission must rule on prudence of QIP expenditures in annual utility petition). The City is undoubtedly correct that “the PUA’s ratemaking mandates require that the Commission bar recovery of imprudent or unreasonable costs, ensuring that the resulting rates are just and reasonable. However, this review is a retrospective review to ascertain whether expenses the Company claims to have incurred were prudently incurred. It is not, as both the AG and the City suggest, a review to determine whether to allow anticipated costs or expenses before those costs are actually incurred. The City is simply wrong in suggesting that the Commission gives prospective “permission” for costs to be incurred. However and importantly, by *incurring* expenses the Company is not guaranteed that it will *recoup* those expenses from ratepayers. This is where the Commission conducts its oversight; the Commission decides whether each of the costs incurred was prudently and reasonably incurred and thus properly recovered from ratepayers. In general rate cases, the Commission routinely denies recovery of costs that are not allowable; these expenses are not unspent, they are simply not recovered from customers. However, disallowance of costs by the Commission provides direction to utility management for future business decisions, and discourages companies from repeatedly incurring costs for which the Commission denies recovery. Similarly, Staff is confident the Commission will reject any QIP costs that are not deemed to be prudent and reasonable. As the City correctly observes, the cap on QIP recovery does not prohibit the Commission from deciding that some costs are imprudent or unreasonable. *Id.* at 27. The clear language of Section 9-220.3 does, however, prohibit dictating that the Company must establish a program that will result in expenditures lower than the statutorily defined cap.

(iii) AG’s Position

The AG argues that the Commission has broad authority under the PUA to evaluate and, if necessary, order changes in the operation and investment decisions of a utility. That authority includes requiring a utility to modify *the pace* of investment if the Commission has been presented with evidence that the proposed utility program is causing rates to be unaffordable, thereby threatening the availability of essential utility service. Section 9-220.3 of the Act does not preclude the Commission’s authority to determine the scope, design, schedule, cost and other issues related to an infrastructure project. The AG proposal to extend the length of *the AMRP program* such that spending is set at approximately \$130 million a year in light of affordability concerns and while ensuring the safety and reliability of the PGL system *does not constitute a cap on overall QIP spending* authorized under Section 9-220.3 of the Act.

The AG states that their respective initial briefs on re-opening, both PGL and Staff argued that Section 9-220.3 limits the authority of the Commission to order a modified pace to the PGL SMP. PGL stated that “[b]y legislative design, the Commission’s role was to be limited to *mandatory* approval of any compliant rider submitted by Peoples Gas

and reconciliation of the utility's collections with its rider-eligible costs thereafter. Inherent in these arguments is the notion that the AG recommendation is nothing more than a new "cap" on spending, in contrast with the qualified infrastructure cap provided for in Section 9-220.3(g) that limits *overall* QIP spending to an annual average 4% of the utility's delivery base rate revenues, with spending not to exceed 5.5% in any given year. The Company claimed that the forum for Commission oversight of AMRP spending is the annual reconciliation process enabled through Section 9-220.3(e) of the Act. *Id.* at 42-43.

The AG contends that these interpretations of the dictates of Section 9-220.3 cannot be reconciled with either the language of that provision or other provisions of the Act that require the Commission to ensure access to essential, affordable utility service and oversight of utility operations in its role as regulators of monopoly utilities. Importantly, too, this characterization of the AG-recommendation ignores the fact that this docket is about Commission review of a specific infrastructure *program* – the AMRP – not overall spending under Section 9-220.3.

The AG asserts that PGL placed great emphasis on the history of Section 9-220.3 and the General Assembly's intent in enacting the statute, even referencing "[t]he urgency with which the legislature acted" as support for its view that the cost cap provisions in Section 9-220.3. *Id.* at 38-39, 40-42. These arguments ignore the plain language of Section 9-220.3, how the statute came to be, and the Company's own admissions in this and other proceedings. From the beginning Peoples Gas's push for rider recovery of AMRP investments and the enactment of Section 9-220.3 has been about primarily about PGL's interest in ensuring revenue recovery without the need to file a rate case, no more no less.

The AG notes that the Commission originally approved ordered the AMRP in PGL's 2009 Rate Case. In its Order in that proceeding, the Commission first approved the institution of an infrastructure cost recovery rider known as Rider ICR for purposes of supporting an accelerated main replacement program for PGL's pipelines. *N. Shore Gas Co./The Peoples Gas Light and Coke Co.*, Docket Nos. 09-0166/0167 (Cons.), Order at 194 (Mar. 17, 2010). The Commission then approved PGL's proposed AMRP and required completion of the program by 2030 – an end date that PGL had proposed in an effort to secure approval of the rider. *Id.* at 196. However, the Company made clear, it did not feel obligated to complete the program by that end date – an indication that bringing the AMRP to the Commission for approval was centered on its request for Rider ICR – not system safety.

The AG appealed the Commission's approval of Rider ICR as unlawful. The Appellate Court concurred with the AG and reversed that decision in *People ex rel. Madigan v. Ill. Commerce Comm'n*, 2011 IL App (1st) 100654, setting up Peoples Gas's approach to the General Assembly to create statutory authorization for a rider and the enactment of Section 9-220.3 of the Act. The notion that the acceleration of the AMRP and Section 9-220.3 was enacted based on Peoples Gas's safety claims, as the Company suggests, lies in stark contrast with the testimony of its own witnesses after Section 9-220.3 was approved. Peoples Gas witness James Schott made this clear in the PGL merger case, Docket No. 14-0496, when he stated in his surrebuttal testimony that "appropriate cost recovery" is "linked" to PGL's intention to complete the AMRP by

2030. Joint Applicants (“JA”) witness Mr. Leverett added the identical caveat of “appropriate cost recovery.” Thus, PGL’s suggestion that the General Assembly acted with a sense of “urgency” based on the Company’s concern about vulnerable mains is revisionist history.

The AG adds that the evidence shows that the General Assembly’s understanding of the rate impacts stemming from QIP revenue was faulty just before the enabling legislation was passed in 2013. Where statutory language is ambiguous, Illinois courts may consider external sources, such as legislative history, in order to discern the intent of the legislature. *People v. Bradford*, 2016 IL 118674. The statements of a bill’s sponsor matter when discerning legislative intent. *Casino v. Ill. Gaming Bd.*, 346 Ill.App.3d 18 (2003); *Ill. Federation of Teachers v. Illinois Educational Labor Relations Board*, 278 Ill.App.3d 954, 959, 215 Ill.Dec.710, 664 N.E.2d 107 (1996). To the extent that the Illinois House of Representatives was concerned about affordability issues before it passed the bill (S.B. 2266) that became Section 9-220.3 of the Act on May 27, 2013, the legislative transcript shown as an attachment (AG Ex. 2.3.) to Mr. Coppola’s direct testimony in Phase 1 shows that the bill’s chief sponsor, Representative Phelps, sought to assuage concern on the topic of affordability by declaring the long-term cost of the PGL AMRP program to be “a little over \$2 billion” (*Id.* at 7) and the monthly impact to be \$1.14 per month. *Id.* at 9. Even by PGL’s reckoning, the actual cost of the AMRP is four or five times this amount, and the monthly bill impact up to over twice that amount (or far greater than twice that amount if the monthly impact affirmed by Representative Phelps is taken to mean the average monthly charge, rather than the *average annual increase in the average monthly charge*, as PGL frames its rate impacts).

The AG notes that a colloquy discussing whether the PGL annual adjustment was likely to be 2.5% of the total bill or just the delivery portion, Representative Phelps, the sponsor of Public Act 98-57, stated that “This is...they (PGL) just anticipate 2.5(%). I mean, you know, it could be lower *because that’s going be up to the ICC as well.*” AG Exhibit 2.3 at 10 (emphasis added.). The sponsor’s assumption that the costs of the PGL AMRP could be lower than 2.5% - a figure lower than the 4% annual cap provided for *total QIP investment* under Section 9-220.3(g) in no way supports the PGL’s or Staff’s interpretation of Section 9-220.3 and the Commission’s ability to guide the pace of the AMRP.

The AG argues that its request to place limits on the pace, scope, and annual spend of the SMP does not amount to a request to ignore the cost cap provision of Section 9-220.3. PGL also argued that Section 9-220.3 limits the Commission’s authority to mandatory approval of any compliant rider, and asserts that People Gas may recover “*all*” of its qualifying investment so long as the resulting annual increase relative to its base rate revenues does not exceed 4% on average or 5.5% in any given year. The Ag asserted that PGL erroneously and disingenuously conflates the Commission’s authority to monitor and guide *AMRP pace and spending* – a program that has been rife with mismanagement – with its authority under Section 9-220.3 to cap qualifying infrastructure plant spending at 4% annually. The Commission should reject PGL’s argument.

The AG claims that the Section 9-220.3(g) limitations on Rider QIP recovery act to set a *maximum* level of Rider QIP collections each year, thus constraining the

Commission's ability to authorize PGL (or any other gas utility) to recover more than the referenced amount under that rider. No matter how much actual QIP capital expenditure is spent in a year (as well as how much is accumulated from prior years), the utility's authorized collections can never exceed the 9-220.3(g) limits. However, a ceiling is not a floor; Section 9-220.3(g) does not set a *minimum* level of Rider QIP recovery equal to 4% of delivery base revenues on average. The Company could (and has) collected less than that and not operate contrary to the statute. The AG's recommendation that the Commission authorize PGL to spend \$130 million annually (with an annual 3% cost escalator) *on the AMRP* is not a request to lower the cap on *all* Rider QIP investment. PGL and Staff characterizations of the AG proposal as such should be dismissed.

Further, while the Commission may not possess the authority to impose a rate cap lower than the Section 9-220.3(g) caps in any given year's Rider QIP reconciliation proceeding under Section 9-220.3(e)(2), the question of what nature and *pace of the AMRP investment program the Company should undertake to begin with* is distinct from *what overall rate caps on total Rider QIP recoveries should be*. Here, the AG recommends that the Commission modify the pace of the program such that the annual spend approaches \$130 million annually, along with other recommendations related to metrics, reporting and overall engineering approach. That recommendation in no way contradicts Section 9-220.3 investment caps nor impinges on the Company's ability to make other investments.

The AG notes that AG witness Coppola testified that the Company has already agreed in the WEC merger case as a condition of reorganization approval to make capital expenditures during 2015-2019 that are not included in its three-year SMP. AG Ex. 4.0 at 8. Hence, the AG position that the Commission must examine the PGL total bill when assessing the appropriate pace, scope and annual spend of the AMRP.

The AG adds that this investigation was designed to specifically focus on a particular program – the AMRP -- that the Commission has overseen since 2007, when the Commission first authorized the Kiefner Study as a condition of approval of the reorganization of Peoples Gas and its affiliate companies under WPS Resources. *N. Shore Gas Co. et al.*, Docket No. 07-0540, Order, Appendix A, par. 23 (Feb. 7, 2007). From the beginning, the Commission has overseen the pace and scope of the program. While Section 9-220.3 was enacted after this order, the Commission's interest and oversight authority of the AMRP was in no way diminished.

The AG asserts that nothing in Section 9-220.3(g) prohibits the Commission from directing a gas utility to pace an infrastructure investment program in a particular manner over the long term so as to protect customer affordability, resulting in annual recovery levels below the 9-220.3(g) caps for that particular program, in light of the Act's other directives. The Commission must acknowledge that affordability and cost-minimization, *i.e.*, least cost utility service regulatory mandates, support setting SMP investment levels that result in recovery levels below the Section 9-220.3(g) limits.

The AG also responds to PGL's and Staff's discussion of the statutory construction rule that "where there exists a general statutory provision and a specific statutory provision, either in the same or another act, which both relate to the same subject, the specific provision controls and should be applied." This statutory precept is inapposite

here. The Commission's general authority over the operation of utilities and to monitor the pace investment in the AMRP within the context of need and affordability of rates *through this specific docketed investigation* is not diminished by a statute, Section 9-220.3, which created a cost recovery mechanism for a broad category of qualifying infrastructure investment to enable a return of an investment between rate cases. This docket is not investigating all QIP investment, as PGL's and OGC's arguments suggest. Likewise, the AG recommendation to limit *AMRP* investment to \$130 million annually in order to minimize *that program's impact on customer rates* is within the Commission's general authority under multiple provisions of the PUA.

The AG argues that PGL mischaracterized the AG recommendation to oversee the pace and spending of the AMRP *while better ensuring system safety by prioritizing the most vulnerable mains for replacement* with what it describes as "an invitation to ignore" Section 9-220.3 "with no apparent concern for the safety and reliability concerns that so motivated the legislature in 2013." The AG responds that the Company and Staff ignore the PUA as a whole and would render other provisions of the Act that address the affordability of utility service and the Commission's general authority over the operations of utilities meaningless. In construing a statute, all statutory language should be given effect. *Bus. & Professional People for the Public Interest v. Ill. Commerce Comm'n*, 146 Ill.2d 175, 206 (1989). Under the doctrine of *in pari materia*, two legislative acts that address the same subject are considered with reference to one another, so that they may be given harmonious effect. *In re Dougherty*, 2017 IL App (1st) 161893, ¶15; *Citizens Opposing Pollution v. ExxonMobil Coal U.S.A.*, 2012 IL 111286, ¶ 24, 357 Ill. Dec. 55, 962 N.E.2d 956. The doctrine is consistent with the Court's acknowledgment that one of the fundamental principles of statutory construction is to view all of the provisions of a statute as a whole.

The AG states that in the instant case, the Findings and Intent section in Article I of the PUA clearly indicates the General Assembly's goal that utility regulation shall make the rates for utility service affordable, thus preserving the availability of such services to all citizens, and that the Commission is mandated to examine rate impact and affordability when overseeing utility operations. 220 ILCS 5/1-102(d)(viii). The General Assembly also emphasized its goal of assuring affordable natural gas service in Sections 4-304 (220 ILCS 5/4-304(4)(a), (b), (c) (directing the Commission to prepare an annual report discussing, *inter alia*, utility service affordability issues)), 5-111 (220 ILCS 5/5-111(a), and 19-130 (220 ILCS 5/19-130 ("Solutions proposed by the Office to promote retail competition must also promote safe, reliable, and affordable natural gas service")) of the Act. The Illinois Supreme Court has emphasized the importance of affordability, holding that "public utilities are regulated monopolies whose operations are subject to [...] the goal of *universal* service, achieved through the preservation of utility prices that virtually all customers can afford." *Sheffler*, 353 Ill. Dec. 299 at ¶ 29 (emphasis added).

In addition to the General Assembly's emphasis on service affordability, it has also emphasized the related but distinct requirement that utility services be provided at least cost. See Sections 1-102 (220 ILCS 5/1-102(a) (declaring a goal to be "the provision of reliable energy services at the least possible cost to the citizens of the State")), 7-102 (220 ILCS 5/7-102(b)(1) (requiring, when the Commission approves proposed corporate

reorganizations, that the transaction not diminish the utility's ability to provide (*inter alia*) least-cost service)), 8-102 (220 ILCS 5/8-102), 8-401 (220 ILCS 5/8-401 ("Every public utility subject to this Act shall provide service and facilities which are in all respects adequate, efficient, reliable and environmentally safe and which, consistent with these obligations, constitute the least-cost means of meeting the utility's service obligations.")), and 8-406 220 ILCS 5/8-406(b) (requiring, for issuance of a Certificate of Public Convenience and Necessity for a utility's proposed new construction project, that the utility demonstrate (*inter alia*) that the proposed construction is the least-cost means of satisfying the service needs of its customers)) of the Act.

The AG states that the Illinois Supreme Court has made clear that the Commission has an active role in regulating public utilities, holding that "under the comprehensive scheme set out in the Act, the Commission is to be an active participant." *People ex rel. Hartigan v. Ill. Commerce Comm'n*, 510 N.E.2d 865 (1987). In assessing this role, the Court called the Commission "an investigator and regulator of the utilities." In other words, the Commission is required by the Act to not only assess record evidence and to ensure that the utility with the burden of proof has satisfied that requirement, but also uphold the aforementioned goals of the Act, including that utility service remains affordable to its customers.

The AG argues that in light of these statutory goals and the related questions of cost and affordability in Sections VIII and IX of the May 31, 2016 Staff Report, the Commission must consider carefully whether the Company's plans around main replacement and system modernization are destined to result in affordable natural gas service for all of the people of Chicago – as well as what should be done about it.

The AG states that the record shows that setting SMP budgets based on a statutory spending cap in Section 9-220.3 of the PUA has severe rate consequences. AG witness Coppola observed, as a matter of pure arithmetic, that a 4% average annual increase in rates solely for the AMRP translates to a cumulative increase of 100% over 25 years, or a doubling in customer delivery rates, which is a minimum increase assuming (however unrealistically) PGL does not file any new general rate cases. AG Ex. 2.0R at 27. If PGL files for base rate increases at its discretion during that time, there is no defined cap on the amount of QIP investment that can be incorporated into test-year rate base in a general rate case, other than a general prudence standard. *Id.* at 27. Moreover, each time the Commission issues a new general rate order, the Section 9-220.3(g) QIP surcharge cap is reset to zero, so that the following year can see a QIP surcharge equal to 4% of the new, higher base delivery service revenue level and a commensurate infrastructure spending increase. If PGL filed annual general rate cases, the cumulative effect of annual 4% increases over 25 years – compounded geometrically – could reach 167% or nearly a tripling of customer rates (before even considering potential increases in other delivery and supply bill components). *Id.* at 28. Contrary to PGL's claim, these figures show that the operation of the Section 9-220.3(g) QIP surcharge cap does very little to moderate AMRP/SMP-related rate increases, and the Commission cannot rely on that lever alone to ensure affordability.

The AG adds that the interplay of Sections 8-501 and 8-503 control here as well. These sections were cited by the Commission recognized in Section 2(d) of its March 1, 2017 Order Directing Additional Hearings. Section 8-501 provides:

Whenever the Commission, after a hearing had upon its own motion or upon complaint, shall find that the rules, regulations, practices, equipment, appliances, facilities or service of any public utility, or the methods of manufacture, distribution, transmission, storage or supply employed by it, are unjust, unreasonable, unsafe, improper, inadequate or insufficient, the Commission shall determine the just, reasonable, safe, proper, adequate or sufficient rules, regulations, practices, equipment, appliances, facilities, service or methods to be observed, furnished, constructed, enforced or employed and it shall fix the same by its order, decision, rule or regulation. 220 ILCS 5/8-501.

Additionally, Section 8-503 provides that

Whenever the Commission, after a hearing, shall find that additions, extensions, repairs or improvements to, or changes in, the existing plant, equipment, apparatus, facilities or other physical property of any public utility or of any 2 or more public utilities are necessary and ought reasonably to be made or that a new structure or structures is or are necessary and should be erected, to promote the security or convenience of its employees or the public or promote the development of an effectively competitive electricity market, or in any other way to secure adequate service or facilities, the Commission shall make and serve an order authorizing or directing that such additions, extensions, repairs, improvements or changes be made, or such structure or structures be erected at the location, in the manner and within the time specified in said order. 220 ILCS 5/8-503.

These two Sections, considered separately or together, show that the Commission has extensive power to direct a gas utility to undertake specified improvements to its facilities if the utility's existing practices are not attaining the goal of securing "adequate service or facilities" for customers.

The AG asserts that service that is not affordable cannot be adequate. Both of these sections authorize the Commission to shape a long-term gas distribution replacement program in a manner that will optimize affordability and thus adequacy of gas service. That directive in no way conflates to altering the entire qualifying infrastructure spending authorized under Section 9-220.3.

The AG states that the Commission does not have to wait to learn that large numbers of customers cannot afford gas service before taking action. With no express limit from the General Assembly on Section 8-501 and Section 8-503 authority, the Commission should feel confident that it can proactively proscribe the scope and pace of the SMP to further both safety and affordability goals.

The AG responds to PGL's argument that the Rider QIP reconciliation dockets are the only way to manage the affordability of the AMRP program. PGL IB-R at 45-46. Under Section 9-220.3(e), the Commission examines the QIP investments that were charged to ratepayers during a single 12-month period (a return of and on that investment) *after the fact* for prudence and reasonableness of cost. 220 ILCS 5/9-220.3(e). That annual exercise, however, in no way replaces the Commission's authority under the previously referenced statutes, including those provisions ensuring the goal affordable natural gas service, Sections 4-304 (220 ILCS 5/4-304(4)(a), (b), (c)), 5-111 (220 ILCS 5/5-111(a)), and 19-130 (220 ILCS 5/19-130); an emphasis on service affordability and that utility services be provided at least cost, Sections 1-102 (220 ILCS 5/1-102(a)), 7-102 (220 ILCS 5/7-102(b)(1)), 8-102 (220 ILCS 5/8-102), 8-401 (220 ILCS 5/8-401), and 8-406 (220 ILCS 5/8-406); and the goal of securing "adequate service or facilities" for customers in Sections 8-501 and 8-503. Reconciliations constitute the Commission's review of the prudence and reasonableness of investments made during a particular calendar year, as collected during that year through Rider QIP. That exercise does not permit the Commission to regulate the scope, content and pace (and by extension, the annual budget) of the AMRP.

The AG asserts that PGL's claim that once the Commission authorized Rider QIP as a legal manifestation of Section 9-220.3 of the PUA, its only remaining responsibility relative to any infrastructure investment that qualifies under the rider is to conduct annual reconciliation proceedings. This position renders the Commission's general authority under the previously referenced sections of the Act to oversee utility services and rates moot.

A tariff cannot supersede the directives of the PUA. Moreover, Section 9-220.3 appears to specifically contemplate other orders of the Commission that might impact the investment costs recovered through the rider:

(e) Review of investment.

(1) The amount of qualifying infrastructure investment shall be shown on an Information Sheet supplemental to the surcharge tariff and filed with the Commission monthly or some other time period at the option of the utility. The Information Sheet shall be accompanied by data showing the calculation of the qualifying infrastructure investment adjustment. *Unless otherwise ordered by the Commission*, each qualifying infrastructure investment adjustment shown on an Information Sheet shall become effective pursuant to the utility's approved tariffs. 220 ILCS 5/9-220.3(e).

This docket represents the Commission's opportunity to affect the pace of AMRP investment, which is but a portion of QIP investment, as noted above. PGL's argument that the QIP tariff prohibits Commission direction of the AMRP should be rejected.

The AG also took issue with Peoples Gas' argument that "[w]hen the Legislature wants to impose a cap on cost recovery or authorize the Commission to do so, it has shown that it knows how to do so", and points to the cost caps within the energy efficiency provisions of the Act, Sections 8-103 and 8-104. The Company stated the Commission

in one energy efficiency proceeding declined to limit the electric utility's administrative costs, stating it lacked the authority to do so. Commonwealth Edison Company, Docket No. 10-0570, Order at 55-56 (Dec. 21, 2010).

The AG asserts that PGL's analogy misses the mark. In fact, the Commission in energy efficiency proceedings has made clear its authority to direct program spending. In Docket No. 13-0495, the Commission reiterated its authority to guide and shape ComEd's energy efficiency spending. *Commonwealth Edison Co.*, Docket No. 13-0495 Order at 65 (Jan. 28, 2014). ("The Commission finds ComEd's argument to be incorrect. There is nothing within the statute or the cooperative [Stakeholder Advisory Group] framework that prohibits the Commission from ordering changes to ComEd's plan even if further refinement is necessary. Indeed, mid-plan corrections are encouraged and ideas that will improve ComEd's performance, whether proposed by ComEd or an intervenor, should be brought to SAG.")

The AG adds that the Peoples Gas' analogy to energy efficiency budget modifications is inapposite because the spending authorized under Section 8-103 and 8-104 is specifically tied to achievement of annual energy savings goals outlined in those statutes. The statute requires that the utility set a budget that achieves those annual goals, up to the cost cap of Section 8-103(d) and 8-104(d). No such directive accompanies Section 9-220.3 of the PUA. Accordingly, this argument fails.

The AG responds to PGL's claim the AG's reliance on the least cost provisions of the Act is misplaced because "least cost" "does not mean providing service for the fewest possible dollars." The AG states that it has not argued that the least cost provisions of the PUA require minimizing costs to jeopardize safety and reliability or that PGL's service must be offered at some unnamed lowest possible rate. What the AG points out is that the Company has failed to show that the significant harm to ratepayers that has been documented in this case that will occur if the \$300 million annual SMP spend is adopted is *necessary* to ensure safety and reliability.

The AG adds that the record reveals that the Company has failed to show that this level of spending on the AMRP as a particular program, *for which the Company has submitted for approval to the Commission's jurisdiction in this docket*, is necessary to ensure the safety and reliability of the PGL system. What the evidence shows is that renewed attention to the most vulnerable mains in the system, coupled with a more moderate annual AMRP spend of \$130 million, will both ensure safety and reliability *and* improve affordability of Peoples Gas rates.

Finally, the AG argues that Staff's and PGL's arguments beg the question: why would the Commission embark on the exercise of examining, as the case caption makes clear, "the cost, scope, schedule and other issues related to the PGL natural gas system modernization program and the establishment of program policies and practices pursuant to Section 8-501 and 10-101 of the Act" if in fact, its hands were tied in terms of evaluating the speed (and hence the spending) of the program? And where was the Company's (or Staff's) motion *in limine* or motion to limit the scope of this proceeding if, in fact, the position of the Company and Staff has been, all along, that the Commission has no authority to regulate the pace of the program?

The Commission (and PGL and Staff) are aware of the immense effort and resources that have been brought to bear by the parties to this case. If PGL and Staff believed that the Commission has no authority to adjust the pace of the program – which is exactly what setting an annual budget does – why didn't they seek to limit the scope of this docket at the outset? More importantly, why did the Commission Staff issue a report that urged the Commission to examine the cost and affordability in its Initiating Report?

The AG concludes that the Commission should reject the Company's and Staff's invitation to restrict Commission authority on a project that this Commission has repeatedly determined requires oversight – from the merger condition in 2007 that requires a regularly conducted engineering study, to the initiation of a multiple-year audit by an outside auditor to this proceeding, and in this docket, in which the Commission requested and received (from only the AG) accurate and complete information about the true cost and impact on customers of the PGL-preferred approach to main replacement – one that the evidence shows does not prioritize replacement of at-risk mains. It should not subjugate its authority under the PUA to impact PGL rates and system safety based on the Company's flawed legal interpretations.

(iv) CUB's Position

CUB observes that, after conceding that the Commission has broad authority to oversee utility activities and protect the public interest, PGL argues that the Commission's authority to limit the maximum amounts recoverable under that rider is constrained by the allowable cap under Rider QIP. To the contrary, CUB concurs with the AG's analysis concluding that "[n]othing in Section 9-220.3(g) or elsewhere in the Act prohibits the Commission from directing a gas utility to pace an infrastructure investment program in a particular manner over the long term so as to protect customer affordability, resulting in annual recovery levels below the 9-220.3(g) caps, in light of the Act's other directives." CUB agrees with the City's similar conclusion that "[a]ppropriate regulatory responses to proven affordability problems are not barred by the recovery caps in the PUA's QIP provision." 220 ILCS 5/9-220.3.

CUB argues that the PUA caps the costs PGL is allowed an opportunity to recover under QIP, but does not set a minimum level of recovery, and does not guarantee recovery at all, unless all applicable requirements are met. 220 ILCS 5/9-220.3(c), 9-220.3(d)(3), 9-220.3(g), 9-211. Thus, CUB concludes that the Commission has the opportunity and the obligation to address affordability concerns in this docket by directing that the implementation of the SMP be moderated to protect the public interest, which includes safety, reliability and affordability of PGL's natural gas service.

6. Commission Analysis and Conclusion

Staff points out that there is no direct conflict between Section 9-220.3 and Sections 8-501 and 8-503 of the PUA. Section 9-220.3 is part of Article IX of the PUA governing Rates. Sections 8-501 and 8-503 are part of Article VIII of the PUA governing Service Obligations and Conditions. As a general matter, these Articles of the PUA address different subject matter (rates as opposed to service obligations) and therefore there is no conflict between the Articles. Staff claims that the Commission cannot legally limit Peoples Gas' maximum periodic recovery of SMP costs under Rider QIP to levels

below those authorized by the cap defined in Section 9-220.3 of the PUA. The Commission agrees. However, the Commission does have the right to make determinations concerning the cost recovery in Peoples Gas' annual QIP reconciliation proceeding. The Commission also retains its authority to approve or to modify infrastructure investment plans using its Article VII authority. Functional effects of otherwise authorized Commission determinations may reduce the amount properly recovered through QIP surcharges, but such effects do not violate section 9-220.3. The Commission also agrees with Staff that Section 9-220.3 establishes the level of rate recovery through Rider QIP for SMP and other QIP-eligible capital work and does not authorize the Commission to establish an alternative level of rate recovery.

D. Overall Program Cost Oversight/Management

1. Peoples Gas' Position

Peoples Gas argues that the PUA gives the Commission the ability to regulate Illinois utilities, and the Commission's oversight function extends to the SMP. According to Peoples Gas, Section 9-220.3 of the PUA, the Commission's rules, and Rider QIP require an annual cost reconciliation proceeding before the Commission regarding SMP and other rider-eligible capital work. PGL Ex. 1.0R at 29. This is both an accounting review and a prudence review of capital costs that are recovered under Rider QIP. *Id.*

Peoples Gas points out that as part of the Commission's oversight over rider-eligible work, it must file detailed cost and revenue data, testimony, and other information in reconciliation proceedings. PGL Ex. 1.0R at 30. Staff and the other parties have the opportunity to review the accuracy of the accounting reconciliation and investigate the prudence of SMP and other capital costs. *Id.* at 30-31. If the Commission finds that any costs were unreasonable or imprudent, it may order a refund to customers of those costs. *Id.*

Peoples Gas explains that each month, Staff receives detailed data supporting the Rider QIP surcharge, which allows it to ensure that the cap will not be exceeded. *Id.* at 29. The rider also requires an internal audit each year and describes five specific tests to be performed, including a showing that no double recovery has occurred. *Id.* at 29-30.

2. Staff's Position

Staff urges the Commission to find in its final order that, in approving an SMP plan for the Company, the Commission makes no determination regarding the prudence, justness, and reasonableness of costs incurred by the Company in carrying out the SMP plan. According to Staff, the Commission should further find that the prudence and justness and reasonableness of costs are to be determined either in Rider QIP reconciliation proceedings or general rate cases. Staff Ex. 1.0 at 3.

3. City's Position

The City argues that as this proceeding attests, Peoples Gas' SMP is not a well-defined, stable program, but one that remains in development. The defining elements of the program -- cost, scope and schedule -- are at issue (Initiating and Interim Order at 2), and each element has been dramatically revised in just the last eighteen months. See AG Ex. 2.0R at 5 (cost escalation); PGL Ex. 1.0R at 15, Fig. 2; PGL Ex. 1.0R at 4. The

City further argues that Peoples Gas' implementation of the program has been problematic, and there is no history of acceptable performance that the Commission can presume will continue into the future. *Wisc. Energy Corp, et al*, Docket No. 14-0496, Order, Appendix A (June 24, 2015). The City avers that as to reporting on program implementation, Peoples Gas' documentation of program performance and results has been inadequate and ineffective in identifying root problems. *See generally* City-CUB Ex. 1.0; Staff Ex. 2.0 at 8-9; City-CUB Ex. 1.5. According to the City, in fact, Peoples Gas admits that the basic structure of its metrics analysis and reporting structure are still in development. Tr. at 203. These fundamental evidentiary determinations regarding Peoples Gas' SMP require that the Commission order significant improvements in Peoples Gas' performance metrics and reporting, to meet the information needs of stakeholders, Staff, the Commission, and Peoples Gas itself.

The City claims that a wide range of reporting proposals are being contested in this proceeding. *Compare* City-CUB Ex. 1.6, PGL Ex. 2.0R at 7-9, AG Ex. 2.0R at 52-53, and Staff Ex. 2.0 at 9-11. Most of those proposals share a few basic principles. First, except for Peoples Gas, parties proposing specific reporting metrics, reports, and procedures testify that it is essential to differentiate Peoples Gas' risk reducing accelerated asset replacement program (the original AMRP scope) from other activities that also may be within the scope of Rider QIP. That is, the reporting on SMP accelerated asset replacement activity should be separate from and exclude other Rider QIP activity Peoples Gas pursues. The City submits that Staff testified that "Peoples Gas' current SMP reporting metrics does not allow for a clear differentiation between costs directly related to the SMP and other Company expenses that may be unrelated to SMP that are also recoverable under the QIP Rider. . . ." Staff Ex. 2.0 at 8. In Staff's view, "the distinction between SMP costs and other QIP recoverable costs is an important one with respect to effective Commission monitoring and oversight of Peoples Gas' SMP." *Id.* at 7. Staff's recommendation acknowledges that the Commission has imposed special requirements of purpose (risk reduction per PHMSA's Call to Action), monitoring/investigation (by Liberty), and implementation (Reorganization Order Conditions) on the accelerated infrastructure improvements tied to the PHMSA Call to Action. Practically, as City-CUB witness Cheaks explained, "the performance metrics and reports on Peoples Gas' risk-based accelerated investments must be broken out from reports on other Rider QIP eligible investments, not commingled." City-CUB Ex. 1.0 at 52.

Second, the City maintains that the parties agree that program design may directly affect the particulars of the appropriate metrics and reporting regime. As the Staff Report recommended, the applicable monitoring, metrics, and reporting regime must "be designed to match the pace and design of the program." Staff Report at 20. In fact, proper report detail, frequency, and scope flows from program design and the purposes served by the reports. For example, under Peoples Gas' proposed three-year plans, semi-annual reports cannot provide timely performance data, to facilitate changes in Peoples Gas' practices, or in the rapidly changing program itself. PGL Ex. 2.0R at 11.

Third, the City submits that there is consensus recognition of the need for more information. As Mr. Cheaks testified, successful SMP implementation requires that CDOT

know “how well [the work] is done, not just how much and when.” City-CUB Ex. 1.0 at 43. Similarly, Staff witness Seagle testified that “Staff must have all relevant information available to be able to make informed recommendations regarding Peoples Gas’ policies and practices associated with the execution of the SMP.” Going further, Mr. Seagle described Staff’s reporting needs as “not only a summary view of the program...but also more detailed and precise reporting and information regarding the type of work completed and the costs associated with such work.” Staff Ex. 2.0 at 9. The City notes that the Initiating and Interim Order confirms the Commission’s preliminary determination that its regulatory needs exceed the content of the reports Peoples Gas previously provided. Initiating and Interim Order at 3-4. The record requires the Commission to order more timely and robust performance reporting from Peoples Gas, for coordination with CDOT, for Staff’s regulatory oversight, and for Commission policy development. City-CUB Ex. 1.0 at 14, 16; Staff Ex. 2.0 at 9-10.

The City points to three levels of reporting in the testimony and recommendations of record. First, Oversight Reporting where the highest level of reporting collects key performance indicators (“KPIs”) fundamental to an organization’s operations. KPIs are routinely required in any organization and used by those with oversight responsibilities. There is an apparent consensus that this information should be provided. See City-CUB Ex. 1.0 at 16; Staff Ex. 2.0 at 10-11; PGL Ex. 2.0R at 6-8; AG Ex. 2.0R at 53. Second, Performance Reporting which provides additional data that informs recipients of not only “what” has been done or when, but also “how” the work has been done. The more detailed metrics, and more frequent reports required by the Initiating and Interim Order are illustrative of this category’s performance focus and level of detail. Last, Operational Performance Reporting which is cooperative reporting requiring an exchange of information to coordinate and to monitor Peoples Gas’ activities in the Public Way. The City concludes that the Commission has recognized this level of reporting as essential to efficient implementation of the accelerated replacement of Peoples Gas’ vulnerable mains in Chicago. Such information is required by Conditions 7 and 40 of the Order approving Peoples Gas’ recent reorganization. *Wisc. Energy Corp.*, Docket No. 14-0496, Order, Appendix A.

4. Commission Analysis and Conclusion

The Commission has the ability to regulate Illinois utilities, and the Commission’s oversight function extends to the SMP. Based on the information in this record, the Commission makes no determination regarding the prudence, justness, and reasonableness of costs incurred by the Company in carrying out the SMP plan. The Commission finds that any determination concerning the prudence, justness and reasonableness of costs related to the SMP will be determined in subsequent Rider QIP reconciliation proceedings or in a future rate case.

E. Phase II – Customer Education and Assistance

1. What efforts has Peoples Gas made or plan to make to educate its customers about cost increases as a result of the program?

(i) Peoples Gas' Position

Peoples Gas explains that it is dedicated to helping its customers better understand all aspects of the SMP, including its costs. PGL Ex. 5.0 at 48-50. First, Peoples Gas maintains a website containing information about the SMP. *Id.* The website informs customers that the SMP will require the replacement of more than 2,000 miles of pipe, reports on the Company's progress and explains the program's safety and reliability benefits. *Id.* The website also has a section with Frequently Asked Questions about the SMP. *Id.*

Second, Peoples Gas breaks out the Rider QIP surcharge on monthly bills. *Id.* Additionally, customers were provided with a bill insert that contained information on the types of work that Peoples Gas is performing (e.g., replacing cast iron/ductile iron pipe with polyethylene pipe, relocating gas meters from inside to outside), the benefits of the work (e.g., safety, reduction in future maintenance costs, eliminating the need for mandatory inside inspections for customers who currently have indoor gas meters) and Rider QIP. *Id.*

Third, Peoples Gas' goal is to ensure that all customer call center representatives can field questions and educate customers about the Rider QIP surcharge and what that surcharge is funding. At the start of the program Peoples Gas developed a Rider QIP training program for its call center representatives. *Id.* The training program is updated periodically. *Id.*

(ii) Staff's Position

See Staff's discussion in IX. A.

(iii) Commission Analysis and Conclusion

The Commission notes that the Company has made an effort to educate its customers about how SMP works and the benefits it will have on ratepayers. The Commission finds that Peoples Gas and the other stakeholders should continue to educate the public on not only the program, but the costs and affordability.

2. What resources are available to customers who have difficulty paying their gas bills? Will funding for these resources be increased commensurate with rising customer bills?

(i) Peoples Gas' Position

Peoples Gas explains that it has taken recent actions to enhance the resources available to customers who have difficulty paying their gas bills. PGL Ex. 9.0 REV at 8-9. Peoples Gas has committed to increase its funding for low income energy efficiency programs to \$8.81 million per year for its 2018-2021 energy efficiency plan. *Id.* This enhanced commitment to low income energy efficiency spending represents a \$2.4 million increase over Peoples Gas' initially-proposed \$6.4 million per year for these programs, made at the request of the AG to help address affordability concerns regarding

the impact of SMP costs. Low income residential customers with incomes less than 80% of area median income may participate and receive energy efficiency upgrades at no cost to them. Further, as a result of increased funding, more multi-family low income housing owners may receive rebates of 50%-75% of energy efficiency upgrades' costs for their buildings. *Id.*

Other resources available to customers facing financial difficulties include:

- Share the Warmth -- this program is administered by the Community and Economic Development Association ("CEDA") and provides heating grants to limited and fixed-income households; customers who make a payment toward their bills receive matching grants of up to \$200.
- LIHEAP -- this program provides financial assistance to customers on limited incomes to help pay energy bills; grants are available both for customers who have current service and also for customers who need to reestablish service that has been disconnected.
- Medical certificate program -- this program allows qualifying customers facing serious health issues to provide a medical certificate and prevent disconnection of service.
- Weatherproofing assistance program -- funding is available through CEDA and the Emergency Housing Assistance Program to help low and fixed income customers with weatherproofing projects, which can significantly reduce winter heating costs.
- Illinois Patriot Program -- a residence where the primary occupant is on deployment and having difficulty paying gas bills cannot be disconnected from gas service or charged any late fees during their deployment.
- Neighborhood lending program -- this program is administered by Neighborhood Housing Services of Chicago, Inc. and provides affordable, fixed-rate home improvement loans for energy efficiency improvements like air sealing, insulation or upgrading to a more efficient furnace.

PGL Ex. 5.0 at 50-51. These programs, facilitated by Peoples Gas' customer service, provide assistance to customers who, for whatever reason, find it challenging to fit natural gas service into their monthly budgets.

(ii) Staff's Position

Please see Staff's discussion in V.E.1, above.

(iii) Commission Analysis and Conclusion

Peoples Gas has committed to increase its funding for low income energy efficiency programs through 2021. The Company has also pointed out various programs that are available to help customers pay for their gas bills, such as Share the Warmth and LIHEAP. Peoples Gas also noted that multi-family low income housing owners may receive rebates of 50%-75% of energy efficiency upgrades' costs. The Commission finds that the Company is making an effort to provide the resources to help low income

customers afford their bills. However, the Commission notes that these programs to assist low income customers will need to continue as the SMP progresses. The parties will need to monitor the affordability issues and to find ways to help all customers pay their natural gas bills.

F. Phase II – Bonus Depreciation

- 1. Should program expenditures be increased in the short-term to take maximum advantage of bonus depreciation available through 2019? If so, what is the long-term impact on the cost of the program and to customers if work is accelerated in the near-term? If so, how should bonus depreciation be used?**

(i) Peoples Gas' Position

Peoples Gas explains that bonus depreciation under the federal tax code has offset the cost to customers of investments in gas system upgrades. PGL Ex. 5.2 at 38. With the extension of federal bonus depreciation rules through 2019, the cost to customers of gas system investments is lower than it would otherwise be because deferred tax benefits are applied to reduce Peoples Gas' revenue requirement. These benefits eventually unwind based on the timing of the adjustments under the federal tax code, but the early year benefits more than outweigh the later years on a net present value basis. *Id.*

However, given current constraints in Peoples Gas and contractor resources as well as practical limits about how much work can be coordinated with the City and other stakeholders each year, Peoples Gas is not proposing to further accelerate investment in the early years of the program. The current level of activity, as set forth in the three-year plan, is realistically achievable and will result in the cost-efficient completion of the SMP on a timeline that will protect customers and the public. *Id.*

(ii) Staff's Position

The Company testified that it is not proposing to further accelerate SMP investments (PGL Ex. 5.0 at 44); thus, this issue is moot.

(iii) Commission Analysis and Conclusion

The Commission understands that with the constraints of working in a congested environment like the City of Chicago, an acceleration of the SMP would be difficult to coordinate with all of the parties involved. The Company has stated that Peoples Gas is not proposing to further accelerate investment in the early years of the program. Therefore, as pointed out by Staff, this issue is moot.

VI. PROGRAM REPORTING

A. Interim Order Reporting Requirements

1. Peoples Gas' Position

According to Peoples Gas, the Commission's Initiating and Interim Order directed Peoples Gas to file a preliminary report and monthly reports containing information about SMP work performed in 2016 (e.g., number of miles of main installed, cost of main

installed). On August 19, 2016, Peoples Gas filed its Preliminary Report. Subsequent Month-End reports were filed on August 30, 2016, September 30, 2016, October 30, 2016, November 30, 2016, and December 30, 2016.

2. Staff's Position

In Staff's opinion, Peoples Gas' current reporting metrics do not allow the Commission to differentiate between costs that are recoverable under Rider QIP directly related to the SMP, and other costs that may not be directly related to the SMP but are still recoverable under Rider QIP. As the purpose of this proceeding is to establish the scope and monitoring of the SMP program, Staff considers this an important distinction. Staff recommends that People Gas provide not only the summary view of the SMP, as they have done in monthly reports to date, but also more detailed and precise reporting and information regarding the type of work completed and the costs associated with such work, including detailed information regarding costs associated with the replacement of leak-prone pipe, increasing pressure from low to medium, and moving meters from inside to outside. Staff Ex. 2.0 at 9-11. Staff provides specific recommendations on additional information related to cost and progress that should be provided for each of these categories. *Id.* at 10. As Staff's recommendations in this regard apply not only to reporting during the pendency of this proceeding but are also recommendations for continuing reporting over the life of the SMP, Staff addresses its specific recommendations in more detail below in Section VI. B, Proposed Continuing Reporting.

3. AG's Position

According to the AG, Peoples Gas states that it is willing to continue to report on the "majority" of the metrics the Commission included in its Initiating and Interim Order. Staff argues that the utility should continue to provide these reports, but that future reports should be "more detailed and precise" "regarding the type of work completed and the costs associated with such work, including detailed information regarding costs associated with the replacement of leak-prone pipe, increasing pressure from low to medium, and moving meters from inside to outside." Staff Ex. 2.0 at 9-11. The AG agrees that the reports the Commission required as part of its Initiating and Interim Order should continue and should be augmented by the reports discussed in the next section below.

4. CUB's Position

CUB states that in its Initiating and Interim Order the Commission adopted the full slate of reporting requirements Staff included in its report. CUB agrees with City-CUB witness Cheaks that those requirements are significant improvements in the required SMP performance and oversight metrics and reporting. City-CUB Ex. 1.0 at 37. CUB also asserts that the increase in the level and transparency of the required metrics reporting is a positive step toward devising effective and meaningful metrics and reporting. CUB submits that monitoring additional more granular operational details is necessary to provide the Commission with the data necessary to effectively monitor Peoples Gas' performance.

5. City's Position

The City argues that the record does not clearly establish the precise scope and detail of the Commission's Initiating and Interim Order reporting requirements. The City presented its understanding of those metrics and reports in City-CUB Ex. 1.6. No party presented any specific refutation of the City's detailed description of the Initiating and Interim Order requirements. The City notes that Staff recommended an augmented version of its reading of the Initiating and Interim Order requirements. Staff Ex. 2.0 at 10-11. AG witness Coppola presented a partly overlapping list of metrics that he proposed as performance benchmarks. As well, Peoples Gas proposed a less comprehensive reporting regime that adopted only portions of the Initiating and Interim Order's requirements. PGL Ex. 2.0R at 7. The City maintains that no single interpretation of the Initiating and Interim Order requirements emerged from those testimonies.

The City points out that as indicated by the proposals based on the Initiating and Interim Order, there is a consensus expectation that the content, format, and frequency of the Interim Order reporting will continue in some form. With an exception for Operational Performance reporting, the City supports continuation of those reports, as described in City-CUB Ex. 1.6. The City finds that there is some indication that Peoples Gas expects the Initiating and Interim Order reports to continue, and that the continued provision of such information would not be problematic for the utility. Tr. at 178. In any case, Peoples Gas has successfully collected and reported the metrics defined by the Initiating and Interim Order. See PGL Cross Ex. 2.

The City concludes that the precise scope and content of the Initiating and Interim Order requirements -- or any amended version adopted by the Commission -- must be confirmed and clarified by the Commission, so that any uncertainty is eliminated from applicable reporting requirements.

6. Commission Analysis and Conclusion

The Commission finds that Peoples Gas has complied with the provisions of the Commission's Initiating and Interim Order directing Peoples Gas to file a preliminary report and monthly reports. However, the Commission agrees with Staff that due to the size and scope of the SMP, Peoples Gas should provide additional information to differentiate between costs related to the SMP and other costs that may not be directly related to the SMP but are still recoverable under Rider QIP. The Commission directs Peoples Gas to work with Staff to ensure that, on a prospective basis, Peoples Gas' reports differentiate between costs related to the SMP and other costs that may not be directly related to the SMP but are still recoverable under Rider QIP. Peoples Gas shall make a compliance filing of the additional information to be provided to differentiate between costs related to the SMP and other costs that may not be directly related to the SMP but are still recoverable under Rider QIP.

B. Parties' Proposed Continuing Reporting

1. Report Metrics

a. Peoples Gas' Position

Peoples Gas argues that four principles should guide future SMP reporting: (1) reporting should ensure performance areas that are most important to the Commission and customers or to the achievement of SMP objectives; (2) reporting should measure performance that is largely within Peoples Gas' control or influence; (3) reporting should be clearly defined and based on transparent calculations; and (4) reporting should be readily calculable based on data that is available or can be compiled with reasonable effort. PGL Ex. 2.0R at 6. Peoples Gas claims that the following metrics, as proposed by Peoples Gas witness Hesselbach in testimony, achieve these goals: (1) Main Replaced, which includes, total cost of main installed, total number of miles main installed, cost per mile of main installed and, comparison of actual quantities to planned quantities; (2) Main Retired, which includes total cost of main retirement, total number of miles of main retired, cost per mile of main retirement and comparison of actual quantities to planned quantities; (3) Services Replaced, which includes, total cost of services replaced, total number of services replaced, cost per service of replacement and comparison of actual quantities to planned quantities; (4) Meter Move Costs, which includes total cost of meter moved, total number of meters moved and cost per meter moved; and (5) Restoration Costs, which includes total cost of restoration. PGL Ex. 2.0R at 7-8.

Peoples Gas also recommends three additional metrics that were not specifically proposed by other parties as part of its future reporting to the Commission. These additional metrics are consistent with the four principles outlined above, and will provide additional insight into SMP progress: (1) a work/quantity draw-down curve showing total miles of retired material, on an annual basis; (2) a graph reflecting weather normalized leak rates and a report on the status of spending compared to annual; and (3) the three-year plan budget. *Id.* at 8.

Peoples Gas states that, with the one exception regarding Staff's proposed Earned Value ("EV") metric, Staff is in agreement with Peoples Gas' recommended SMP reporting metrics. Staff Ex. 1.0 at 12. Peoples Gas explains that Staff and other parties have maintained that SMP metrics must be reported separately from other system modernization activities such as work on transmission lines, and Peoples Gas has committed to design its reports accordingly. Peoples Gas argues that while Staff is correct that it would be physically possible for Peoples Gas to obtain information internally and from contractors that would allow it to calculate an EV metric, it does not follow that doing so makes sense for the SMP. PGL Ex. 2.0R at 12-13. Peoples Gas argues that the Commission should reject Staff's proposed EV metric for three reasons. *Id.*

First, Peoples Gas notes that the Company has moved to a unit rate approach to contracting under which contractors are paid a specified amount of money for a specified unit of work. *Id.* at 12-13. Under this approach, since the amount paid for a unit of work does not change no matter how long it takes a contractor to complete the task, efficiencies realized by the contractors benefit them, and inefficiencies harm them (and, more importantly, inefficiencies are not passed along to the Company). Therefore, the

Company argues, measuring the efficiency of work completed by contractors under this sort of contractual structure is beside the point and is not helpful to understanding the efficiency of the project as a whole. Instead, the cost per unit of work metrics proposed by the Company and supported by Staff (e.g., cost per mile of main installed, cost per mile of main retirement) are the appropriate indicators of cost efficiency.

Second, Peoples Gas explains that information needed to report on an EV metric simply does not exist. *Id.* Contractors are not required to provide it, and making them do so would mean amending their contracts, which would result in higher costs and questionable accuracy. Tr. at 223–24. Peoples Gas further argues that collecting the data for work that is done internally would be burdensome. PGL Ex. 2.0R at 13.

Third, Peoples Gas claims that EV metrics are typically employed on discrete projects such as power plants. *Id.* at 12. In that context, where there is a set scope and sequence of work that will not change materially over the course of the project, Peoples Gas concedes that EV metrics can make sense. With the SMP, however, project scope and sequence change annually to coordinate with third party work and as a result of annual risk re-ranking. Peoples Gas claims that EV metrics are much less useful in this context since they depend heavily on a known scope and consistent baselines. *Id.*

Peoples Gas also explains that it opposes the additional reporting metrics proposed by Staff and Intervenors because such metrics will not measure performance in ways that are most important to the Commission's oversight of the SMP or to achieving the program's objectives, will not measure performance that is within Peoples Gas' control, cannot be clearly defined, and/or are not readily calculable with reasonable effort. PGL Ex. 2.0R at 9-11. Specifically, Peoples Gas explains that the Company opposes reporting on the number of hours per mile of main installed separated by in-house and contractor resources. The required data is not presently captured and, if required moving forward, would provide little value to a unit price-based approach Peoples Gas is adopting for its contractors. Further, in-house resources do not participate in main installation work.

Peoples Gas also opposes reporting on increased safety or decreased risk in the manner proposed. This is not quantifiable. Using a metric such as leaks per mile or remaining leak-prone pipe to determine public safety provides little value but rather sets up additional points of debate regarding what is a quantifiable approach to public safety or risk. Peoples Gas believes that the replacement of at-risk CI/DI main according to the current risk ranking model to be the true indicator of increased safety for its customers. *Id.* Further, Peoples Gas has recommended that it provide to the Commission, on an annual basis, weather normalized leak information.

Peoples Gas also opposes, as proposed by City-CUB's witness, metrics such as month-by-month detail, proposed sequence of work, and block-by-block sequence schedules. According to Peoples Gas, these are items that the Company regularly discusses directly with the City in weekly and monthly meetings. These details are more relevant to the City as part of its oversight of day-to-day work in City streets, than to the Commission, which oversees work at a higher level. Peoples Gas continues to work closely with the City to ensure information requests are being met, rather than including

them in its reports to the Commission. Further, the sheer volume of data associated with thousands of permits would be excessive for monitoring purposes.

Additionally, Peoples Gas opposes unit costs and locations for restoration quantities in a “break-out” detail (e.g., asphalt (square yards per location), ADA (each corner per location), alley aprons (each per location), sidewalk (square footage per location), pavement marking (linear feet per type per size per location), all quantities by program (with dotMaps conflicts with numbers where applicable)). This information would be best shared under separate reporting and communications mechanisms rather than through a program report that provides a more appropriate summary level of detail to track progress and performance. The Company submits that the required data for this level of reporting does not currently exist, and the volume of data would be substantial.

As well, Peoples Gas does not agree with metrics regarding the timeline of leak repairs (e.g., start date of work, leak work resolved date, concrete restoration start and end date, asphalt restoration start and end date, total timeline (days)) as they are not material to the tracking of progress and performance.

Peoples Gas also opposes City-CUB’s proposed reporting on capital construction permits (permits associated with the execution of the work) completed within 90 days (for work intended to be completed within 90 days) and average permit duration by category. Peoples Gas believes that these metrics are best addressed and communicated directly with the City under communication processes currently in place. PGL Ex. 2.0R at 9-11.

b. Staff’s Position

Staff made specific recommendations about the additional information Peoples Gas should provide in its reports, both during the pendency of this proceeding and long-term. Specifically, Staff recommends that the following be reported:

1. Detailed information regarding progress and costs in the replacement of leak-prone pipe (total cost of replacement; total number of miles replaced; cost per mile replaced; total cost of retirement; total miles of pipe retired; cost per mile retired; total cost of restoration; and a comparison of actual-to-date values to planned-to-date values);
2. Detailed information regarding progress and costs in increasing distribution system pressure from low to medium (total cost of replacement; total number of miles replaced; cost per mile replaced; total cost of retirement; total miles of pipe retired; cost per mile retired; total number of services installed; total cost to install services; cost per service installation; total cost of service retirement; total cost of restoration; and a comparison of actual-to-date values to planned-to-date values); and
3. Detailed information regarding progress and costs in moving meters from inside customer premises to outside, or to a central location (including number of meters moved; total cost of meter moves; costs per meter moved; total services installed; total cost of service

installation; cost per service installation; total cost of service retirement; total cost of restoration; and a comparison of actual-to-date values to planned-to-date values).

Staff Ex. 2.0 at 10-11.

Additionally, Staff recommends adoption of an EV metric, which would measure the worth of the work that had been physically accomplished to date. *Id.* at 12. Such a metric would focus on the cost and the schedule of SMP to evaluate the efficiency and productivity of work done during a set period of time, thus allowing the Commission to ascertain whether work is being completed on-time and within budget. The reporting metric should contain information on the number of hours (in-house and contractor separately) per mile of main installed. Thereafter, Peoples Gas should compare the actual number of hours (spent) per mile of main installed with the amount of hours originally budgeted (earned) for the same amount of miles installed; e.g. hours earned per hours spent. This metric should also be included for services installed and meters moved. Where applicable, this metric should be included in each category of the SMP including but not limited to the Neighborhood MRP, PI/SI, and the High-Pressure Installation Program. *Id.* at 14.

Staff points out that Peoples Gas witness Hesselbach provided a list of the metrics which the Company agreed to adopt for future reporting. PGL Ex. 2.0R at 7-8. While the Company did not adopt all of the reporting specifics recommended by Staff and other parties, Staff considers the Company's proposed revised reporting requirements to adequately address the progress and costs of replacement of leak-prone pipe, increasing distribution system pressure from low to medium and moving meters from inside to outside. PGL Ex. 2.0 at 12-13. Similarly, Staff agrees with the Company's position regarding additional reporting requirements to address the frequency and tendency of leaks on the system.

Staff believes that inclusion of an EV metric to be essential to providing Staff, other parties and the Commission the necessary tools and information to monitor the progress of the SMP. Mr. Hesselbach suggests that the metrics as proposed by the Company will allow the Commission and other stakeholders to review the actual cost per unit and the actual quantities installed to planned quantities installed. PGL Ex. 2.0R at 13. While Staff agrees the Company's metrics will allow the evaluation described by Mr. Hesselbach, those metrics do not address the key reason Staff recommends an EV metric. In order for the Company's metrics to be more meaningful, there must be a mechanism by which the costs and progress actually achieved during a set period can be compared to the cost and progress estimated for that same duration. While the Company's proposal would give stakeholders the ability to compare actual quantities and costs of work with planned quantities and costs of work, it would not allow for a proper comparison of the cost of that progress, i.e. the effectiveness of the work.

According to Staff, the Company argues that it contracts for the unit rate for installation of main and then pays its contractors at that rate, so it has no way to ascertain whether a contractor worked efficiently. *Id.* at 13. Staff identifies several problems with this reasoning. First, the Company is no less responsible for the cost and progress of the

SMP when work is performed by contractors than by in-house personnel. The Company's inability to determine whether the contractor is working effectively suggests there is an opportunity for the Company to improve its contracting process. Tr. at 198-201 (Mr. Hesselbach agrees the Company could require contractors to provide information necessary to create an EV metric, and that contractors currently track much necessary information already). Accordingly, this does not provide a justification for not providing the Commission with necessary information. Second, Mr. Hesselbach implies that an EV metric would require the Company to determine the cost of performing the various work components that make up the SMP and is therefore overly burdensome. Again, presumably the estimated cost of the work for which the Company contracts is a necessary element of evaluating the reasonableness of any contracting proposals. If the Company has this information for contracting purposes, Staff argues that the Company should be able to translate it into a format that would align with an EV metric. Tr. at 203-204 (Mr. Hesselbach agrees that, if the company obtains such information, it can indeed develop an EV metric). Finally, Staff argues that the EV metric provides the Commission with a figurative measuring stick against which actual costs and progress can be compared.

Staff concludes that absent the ability to compare budgeted cost and progress to actual costs and progress, the Commission is left to evaluate actual achievements in a vacuum. The Company's current proposal to provide only actual-to-date and planned-to-date costs and quantities provides only a small portion of the information needed to inform the Commission of the SMP's productivity and effectiveness. Staff argues that a more in-depth EV metric provides the additional detail needed for the Commission to comprehensively review the scope, schedule and costs associated with the execution of the SMP. For example, installing X miles of main in Y months may appear reasonable on its face, but reasonableness could be significantly undermined when those numbers are compared to the Company's predictions of what X and Y would be. Again, in this example a summary view of actual-to-date and planned-to-date costs and quantities leaves the Commission with a very limited view of the effectiveness of the work done. Staff argues that an EV metric in this example would prove highly useful to measure effectiveness of SMP work.

c. AG's Position

The AG notes that the City made several persuasive arguments as to why there should be more, not fewer reporting requirements for the main replacement program. To place the discussion of necessary reporting requirements in context, the City states that Peoples Gas' SMP is not a well-defined, stable program, but one that remains in development. The defining elements of the program -- cost, scope and schedule -- are at issue (Initiating and Interim Order at 2), and each element has been dramatically revised in just the last eighteen months. City-CUB Ex. 1.0 at 47; *See also* AG Ex. 2.0 at 5; PGL Ex. 1.0R at 15, Fig. 2; PGL Ex. 1.0R at 4. The Company's implementation of the program has been problematic, and there is no history of acceptable performance that the Commission can presume will continue into the future.

The AG argues that Peoples Gas' proposed list of metrics does not include the information necessary to ensure that the program is being implemented successfully as

it goes through yet another implementation approach. For example, Peoples Gas' metrics do not include key goals such as leak risk reduction (declining company-wide leaks and reduction in lost gas), and improved cost efficiencies (restoration costs per mile, contractor labor efficiency, project management efficiency, lower maintenance and repair costs as new mains and services replace old infrastructure, etc.).

AG witness Coppola presented several recommendations for detailed reporting requirements for the Company as the Commission embarks on reconfiguring and refining the MRP. Mr. Coppola testified that Peoples Gas should be required to present a complete, detailed work plan annually for the remainder of the SMP program that shows several components, to be filed at least 60 days before the beginning of each annual QIP cycle, and 20 metrics that would benchmark the performance of the SMP against the approved annual and longer term capital program goals. AG Ex. 2.0R at 52-53. The AG urges the Commission to adopt the aforementioned metrics in the annual Peoples Gas reporting cycle, in addition to those proposed by Peoples Gas and Staff.

The AG adds that Staff witness Seagle also offered recommendations on reporting metrics and that to some extent there is overlap in Mr. Seagle's and Mr. Coppola's recommendations. However, the AG claims that Mr. Coppola's recommendations are superior in detail and context, although the AG agrees with Mr. Seagle's proposed inclusion of an EV metric to company reports. Adoption of such a metric was also recommended by the Liberty auditors. City-CUB Ex. 1.5. The AG supports the addition of such a metric in Peoples Gas' reports. This metric can provide another measure of work efficiency when compared to not only a plan budget, as Staff has suggested, but also to prior years' values. The AG submits that the comparison to prior years' actual results that this metric will provide will reveal both positive and negative performance trends.

d. CUB's Position

City-CUB witness Cheaks observed that the reporting metrics required by the Initiating and Interim Order are missing the detail required to sufficiently monitor Peoples Gas' implementation performance. CUB argues that Peoples Gas' performance reports should be regular and comprehensive enough to provide data to establish performance baselines more quickly. CUB agrees that, if changes to enhance efficiency and cost-effectiveness are to be driven by results, performance refinements must be pursued as construction season data come in as opposed to waiting until the following year.

According to CUB, the metrics proposed by Mr. Cheaks puts special emphasis on safety in order to reflect the fundamental reason for accelerating Peoples Gas' main replacements -- reducing the risks related to the number and severity of gas leaks, cost-effectively, which is not routinely reflected in Peoples Gas' SMP reporting. City-CUB Ex. 1.0 at 44. CUB emphasizes that metrics capturing Peoples Gas' achievements in reducing the number of gas leaks, the volume of escaping gas (which can be measured using CUB's proposed advanced leak detection technology), or some measure of safety improvements would capture the intended benefits of Peoples Gas' accelerated investment for the general public. *Id.* CUB agrees with the City that results on these metrics (and costs) are the tests of whether Peoples Gas' infrastructure work is achieving its stated goal and is delivering value to ratepayers. *Id.*

CUB points out that Mr. Cheaks' assessment of the appropriate metrics to recommend was based on CDOT's front line experience trying to evaluate the effects of Peoples Gas' recent practice changes during the current construction season. *Id.* at 46. At a minimum, CUB recommends that the Commission maintain the performance metrics reporting of the Initiating and Interim Order as an integral component of any SMP plan approved by the Commission. City-CUB also propose to augment the Commission's requirements with the specific additional/modified metrics.

CUB argues that the metrics and reports detailed in City-CUB Ex. 1.6 are based on the requirements of the Commission's Initiating and Interim Order and the Commission's recognition of the need for more functional performance metrics and for transparent reporting. The availability of enhanced reporting will enable the Commission (and other stakeholders) to conduct informed reviews of Peoples Gas' plans and plan implementation. *Id.* at 48. CUB states that the City's modifications can improve the usefulness of what the Commission has ordered, and they have special relevance to this formative period of Peoples Gas' infrastructure planning. *Id.*

CUB maintains that the Commission's Initiating and Interim Order reporting requirements were a response to Peoples Gas' past performance and the enormity of the program and its costs. *Id.* at 50. CUB points out that Peoples Gas' Commission-approved program, which will be very expensive for Chicago residents/ratepayers, was justified as an accelerated removal of high-risk facilities. CUB states that Peoples Gas' performance in achieving the risk objectives efficiently and cost-effectively cannot be monitored unless the metrics for those particular tasks are recorded and reported separately from other infrastructure work. *Id.*

According to CUB, reported metrics should be tracked and reported separately, and the results of Peoples Gas' investment should be evaluated against the program objectives (i.e. providing an asset management approach to reductions in pipeline leaks and the risk of catastrophic pipeline failure). *Id.* CUB recommends that Peoples Gas' performance should be monitored over two consecutive construction seasons – with the proposed metrics collected, reported, and analyzed – in order to establish base line costs, quantities, and schedules. *Id.* at 54. CUB argues that this should occur, regardless of whether the Commission adopts Peoples Gas' proposal to implement rolling three-year SMP plans. CUB urges the Commission to, at a minimum, maintain the Initiating and Interim Order's monthly, quarterly, semi-annual, and annual reporting frequencies associated with specific data items and reports for the duration of the SMP program.

e. City's Position

The City identifies three levels of metrics and reporting in the testimony and exhibits of record: 1) oversight reporting; 2) performance reporting; and 3) operational performance reporting. Each category of reporting is important to efficient implementation and effective oversight of Peoples Gas' accelerated replacement of its vulnerable mains, but each has distinct purposes.

With regard to oversight reporting, the City states that fundamental KPI information is routinely required in any organization and regularly used by those with oversight responsibilities. The City submits that there is an apparent consensus that this type of

SMP information should be provided. The City notes as well that such metrics and reports are included in the Initiating and Interim Order requirements and in every slate of reporting recommendations in the record, including Peoples Gas’.

According to the City, the reporting metrics proposed by Peoples Gas fall mainly into this category. Peoples Gas proposes to report total costs, quantities, and unit costs for each of the following categories of assets: mains replaced (\$, miles, \$/miles); mains retired (\$, miles, \$/miles); services replaced (\$, number of services, \$/service); meters relocated (\$, number of meters, \$/meter); plus similar metrics for restoration work (\$, miles, \$/miles). Peoples Gas also proposes to report comparisons of planned and actual amounts for mains replaced, mains retired, and services replaced. PGL Ex. 2.0R at 6-8. Peoples Gas would like to report this information on a semi-annual basis, though the utility acknowledges that quarterly reports are reasonable for a subset of the information it proposes to provide. *Id.* at 11. Peoples Gas also offers to provide certain productivity-type metrics. Specifically, the utility would report a work/quantity draw-down curve for miles of retired material, an annual report of weather normalized leak rates, and a comparison of actual expenditures to the applicable three-year plan budget. *Id.* at 8. The City argues that no lesser set of reports can be justified by this record.

The City explains that performance reporting encompasses expanding the oversight reporting described earlier to incorporate implementation performance information. This enhanced level of reporting provides performance data that CDOT needs to monitor and use to coordinate Peoples Gas’ activities in the Public Way. The Commission recognized in Conditions 7 and 40 of the Docket No. 14-0496 Reorganization Order that this type of reporting, the provision of planning information, and CDOT-PGL coordination are essential. The City maintains that the Commission’s Initiating and Interim Order requirements (as detailed in City-CUB Ex. 1.6) exemplify performance reporting, supplementing oversight reporting with data to enhance both monitoring and coordination of Peoples Gas’ Public Way activities.

The City supports continued, regular provision of the Initiating and Interim Order reports. Ideally, the reports should continue for the duration of Peoples Gas’ SMP program, whatever its design. The City states that at the very least, the more frequent, more robust reporting now required by the Initiating and Interim Order (and City-CUB Exhibit 1.6) should continue until Peoples Gas has achieved a stable, acceptable level of SMP performance. Peoples Gas’ performance should be monitored over two consecutive construction seasons – with the proposed metrics collected, reported, and analyzed – in order to establish base line costs, quantities, and schedules that would support a decision to reduce the Initiating and Interim Order reports. City-CUB Ex. 1.0 at 52-54. The City adds that some continuation of this routine provision of performance metrics and reports was also a consensus position of the parties in this proceeding.

Lastly, the City details that operational performance reporting, a subset of performance and planning information, focuses on the cooperative provision of information at frequencies and levels of detail needed for the hands-on Public Way management tasks that CDOT performs. Past deficiencies in this type of reporting have affected the efficacy of Peoples Gas’ and CDOT’s efforts to achieve the level of

coordination contemplated by Reorganization Order Condition 7 and the provision of planning information referenced in Condition 40 of that Order.

The City notes that in Peoples Gas' rebuttal testimony, Peoples Gas implicitly acknowledged the importance (to CDOT) of its provision of this type of information. At the same time, Peoples Gas expressed its view that such information is not relevant to the Commission. PGL Ex. 2.0R at 9. Accordingly, Peoples Gas suggests that the precise scope and content of the operational performance reporting that Mr. Cheaks recommended (as well as arrangements for its provision) would be better handled through the communication and coordination channels CDOT and Peoples Gas have established in response to the Commission's Reorganization Order Conditions. PGL Ex. 2.0R at 10; *Wisc. Energy Corp.*, Docket No. 14-0496, Order, Appendix A (Conditions 7 and 40). The City accepts Peoples Gas' invitation to address these issues in bilateral CDOT-PGL discussions.

The City acknowledges that the operational performance reporting is more useful in CDOT's planning and operations than in the Commission's regulatory oversight. The City and Peoples Gas have acted diligently to give effect to the Commission's directives, by improving coordination and addressing other weaknesses CDOT or Peoples Gas has identified in their operations. See City-CUB Ex. 1.0 at 11. In that spirit, the City is willing to use that process to resolve Mr. Cheaks' recommendations for additional operations level reporting, with cautions. Mr. Cheaks' testimony describes occurrences that illustrate the consequences of a failure to inject timely, accurate, and properly detailed information into CDOT's planning and operations management. The success or failure of this effort to obtain effective performance monitoring and coordination planning information, may determine (in the City's view) Peoples Gas' compliance with the Commission's Reorganization Order Conditions.

According to the City, one of the most significant differences among various parties' proposals for metrics and reports (at all levels) is the frequency at which reports will be provided. Peoples Gas proposes to provide reports semi-annually. That schedule would be Peoples Gas' default reporting schedule, allowing for a limited number of high level reports on a quarterly basis. PGL Ex. 2.0R at 11. The City finds that represents a considerable decline in reporting from the Commission's view of the appropriate provision of information, as defined by its Initiating and Interim Order.

In the City's view, Peoples Gas' proposed reporting frequency does not match its proposal for short-term, "rolling" three-year plans. Reports every half-year in a series of three-year plans (as Peoples Gas proposes) does not provide the Commission with enough data to reveal trends or problem areas in a timely manner, or before plans change. Moreover, under Peoples Gas' proposal for semi-annual reports (beginning in July 2017), SMP implementation during Chicago's limited construction seasons would not be usefully monitored. The City contends that if Peoples Gas provides one of its semi-annual reports mid-construction season, the results for each season will be split between separate reports. Even when combined, the reports can guide performance only for a later (possibly already modified) construction plan, and any attempt to establish performance base lines is unnecessarily complicated. Alternatively, the City states that if Peoples Gas provided semi-annual reports before and near the end of each

construction season, they would provide no actionable information during construction, precluding timely correction of any performance deficiencies identified by report data.

The City claims that to be useful, certain elements of performance reporting are most usefully made on a monthly basis, as the Commission recognized in the Initiating and Interim Order. Only reports at that frequency permit early detection of performance trends and timely implementation of corrective actions. The monthly reports are useful even outside the construction season, since recent past performance can guide planning (by both CDOT and Peoples Gas) for the upcoming construction season. The City states that Mr. Cheaks' testimony supports continuation of the Commission's Initiating and Interim Order reporting, including (especially) the monthly reports. Peoples Gas' proposal for a new program of rapidly changing implementation plans heightens the need for more frequent, meaningful reporting. The City submits that the still-fluid character of Peoples Gas' evolving MRP and the utility's uneven implementation performance require frequent reports on the program's development.

The City points out that Peoples Gas' current implementation activities constitute the first construction season under its new planning framework, which was revealed less than one year ago. Peoples Gas plans to revise its plans for subsequent construction seasons, in undetermined ways, at the end of each year. Meanwhile, this proceeding contemplates a comprehensive review of the cost, scope, and schedule of the main replacement effort. The City stresses that there has been no validation of any particular set of metrics and reports. More important, as Mr. Cheaks observed, Peoples Gas' performance has not reached a level that is acceptable over the long term. At this stage in the evolution of Peoples Gas' program, the City believes the Commission should not rush into any scaled-down reporting protocol.

The City recommends that the Commission maintain the Initiating and Interim Order's monthly, quarterly, semi-annual, and annual reporting frequencies associated with specific data items and reports. If for any reason the Commission declines to continue its own reporting regime, the City asks that monthly reports continue to be required at least for the months of active construction in each calendar year.

Additionally, the City notes that an issue closely related to the frequency of information provision is the availability of required reports. The City supports continuation of the e-Docket filing process the Commission prescribed in its Initiating and Interim Order. That process is easily applied to the final reporting protocols defined in this proceeding. The City states that although not all parties addressed this issue expressly, support for the Initiating and Interim Order's requirements suggest support for its filing procedures as well.

f. Phase II

(i) How should the proposed Earned Value (EV) metric be defined and used to measure the value of completed work?

(a) Peoples Gas' Position

Peoples Gas explained that it investigated Earned Value ("EV") and the applicability of incorporating EV-related concepts into its management of the SMP. Staff Ex. 5.2. Based on this investigation, Peoples Gas maintains that EV metrics as they are typically used with respect to discrete infrastructure projects that have a fixed scope are not appropriate or necessary to track performance of the SMP, which is comprised of thousands of mostly small, largely independent projects spread over multiple years. *Id.* Further complicating a fit with traditional EV concepts is the persistent schedule adjustments that take place as neighborhoods are annually reassessed as well as within the construction season when a significant number of projects are moved forward or pushed back as part of coordination with numerous public and private entities. Also of note, as part of the investigation into the usefulness of EV metrics for the SMP, Peoples Gas surveyed five other gas utilities that Mr. Therrien identified as peer utilities. *Id.* This analysis showed that none of the peer utilities have implemented traditional EV metrics as they were originally proposed in this docket. *Id.*

As a result of discussions between Peoples Gas and Staff, Peoples Gas recommended that it report on the following enhanced cost per unit metrics:

- Main Costs (\$/mile) Planned v. Actual per:
 - Neighborhood Projects
 - Public Improvement/System Improvement Projects
 - High Pressure Projects
- Service Costs (\$/service) Planned v. Actual per:
 - Neighborhood Projects
 - Public Improvement/System Improvement Projects
 - High Pressure Projects
- Meter Costs (\$/meter) Planned v. Actual.

Id.

Peoples Gas explained that although the enhanced cost per unit metrics are not an EV metric in the traditional sense, they would measure performance against an established standard, which was the original intent of Staff's proposal. Staff agreed with Peoples Gas' recommendation, stating that "Peoples Gas' proposal to monitor productivity/effectiveness is consistent with the position taken by Staff in the first Phase of this proceeding." The enhanced cost per unit metrics will include the planned cost per unit as well as the actual cost per unit along with an updated forecast of cost per unit for the remainder of the calendar year. Staff Ex. 5.2. This data will allow Staff to effectively

monitor Peoples Gas' management of the SMP. Specifically, providing both the actual and forecast metrics for each activity compared to the planned value will allow an assessment of the current and future status of the SMP that is independent of changes in the sequence of projects. Providing these cost per unit metrics will allow Staff to review the performance for each of the identified programs and in instances where variances are identified more granular data will be readily available. Additionally, having cost per unit data in a consistent format will allow for consolidated metrics such that the Staff can evaluate the overall performance of the SMP. *Id.*

The AG, who did not propose the EV concept to begin with, now opposes the enhanced cost per unit metrics supported by Peoples Gas and Staff. The AG argues that because Peoples Gas will generate the planned cost figure against which actual costs will be tracked, Peoples Gas will artificially inflate the SMP's planned costs to "systematically improve the perceived quality of its performance." This is speculation on the AG's part. The AG has presented no evidence showing that Peoples Gas has inflated its SMP budgets in the past or has plans to do so in the future. Further, when Staff witness Mr. Seagle, who has served as Staff's point person on SMP reporting metrics, was asked whether he was aware of any effort on Peoples Gas' part to distort its SMP metrics, he answered in the negative. Tr. at 663-664.

(b) Staff's Position

While the Company disagreed with Staff's recommendation for an EV metric in Phase I of this proceeding, the Company now agrees to an EV metric. Staff testified that Staff and the Company are collaborating to develop the EV metric. Staff Ex. 5.0REV at 5. The Company suggested the enhanced use of cost-per-unit metrics would better serve the purpose of measuring performance against established standards of performance. Staff Ex. 5.0, Attach. 5.2.

Peoples Gas explained the data would include the planned cost per unit as well as the actual cost per unit, along with an updated forecast of cost-per-unit for the remainder of the calendar year. Peoples Gas opines that this data will allow Staff to effectively monitor Peoples Gas' management of the SMP because having both the actual and forecast metrics for each activity compared to the planned value allows an assessment of the current status of the SMP from the perspective of both costs and productivity, as well as an assessment of future cost and productivity projections. *Id.*

Peoples Gas' proposal to monitor productivity/effectiveness is consistent with the position taken by Staff in the first Phase of this proceeding. Staff Ex. 5.0REV at 6.

(c) AG's Position

The AG notes that Staff witness Seagle explained in his original direct testimony that an EV metric would compare actual costs incurred, or resources used, to *planned* costs/resources for particular work. Staff Ex. 2.0 at 12-14. Mr. Seagle argued that such an EV metric would allow the Commission "to monitor and conduct a meaningful review of SMP work to ascertain whether work is being completed on time and within budget." *Id.* at 13. In their respective Phase II direct testimonies, PGL witness Hesselbach and Staff witness Seagle alluded to the idea that the Company and Staff were in the process of "collaborating" to develop an Earned Value Metric and "will submit details of the metric

when finalized.” PGL Ex. 5.0 at 53; Staff Ex. 5.0 REV at 4. In his Phase II rebuttal testimony, Mr. Hesselbach stated that “Peoples Gas has been engaged in discussions with Staff on [the Earned Value Metric] and has incorporated Staff’s suggestions into developing the appropriate performance metrics for the SMP.” PGL Ex. 7.0 at 11.

The AG adds that Mr. Hesselbach stated that the Company “is in the process of implementing processes for collection of data and associated analysis for these metrics. Peoples Gas anticipates being able to present the proposed metrics beginning in 2018.” *Id.* at 12. Contributing to the evolving nature of the EV metric, Mr. Seagle stated in his rebuttal testimony on re-opening that “Peoples Gas continues to work with Staff to establish a framework that allows for more in-depth analysis of EV metric data (Staff Ex. 8.0 at 2) and that the two parties “will submit details of the metric when finalized.” *Id.* at 4. Mr. Hesselbach, however, was curiously silent on the topic of the EV metric in surrebuttal testimony. During cross-examination, Mr. Seagle admitted that the Company and Staff had not actually discussed the topic since July 18th. Tr. at 635. With all evidence now submitted into the record, it appears that Staff and the Company intend to make no effort to “finalize” the EV metric proposal.

The AG argues that besides not being fully defined at the close of the evidentiary phase of the case, the EV metric has a fatal, inherent flaw. Mr. Seagle explained during cross-examination that Peoples Gas would be responsible for providing the “planned cost” data that enters into the EV metric, as well as actual cost data. Tr. at 635-636. He further stated that he “suspect[s] [PGL] would use historical data” to generate the planned cost data. *Id.* at 636. Mr. Seagle said that ideally, this historical data would go back to the “beginning of the program” at the beginning of 2011. *Id.* at 640-641. Yet he also confirmed that the Company is not currently reporting actual historical cost figures that go any further back than August of 2016. *Id.* at 665. As shown in AG Cross Exhibit 29, PGL admitted that “[t]he quantity and cost data necessary to calculate per-unit data from 2011 to 2015 was not tracked [...] at the program level of Neighborhood, Public Improvement/System Improvement, and High Pressure.” These are precisely the cost categories that PGL proposes to include in the Earned Value Metric. Thus, Staff’s expert confirmed that PGL lacks the ability to provide the information he says he needs to validate whether the EV metric is reliable.

The AG states that in the original evidentiary hearing in this proceeding, Mr. Seagle stated that, considering hypothetically a scenario where the Company would be responsible for generating both the budget data that enters into the earned value metric, as well as the realized time or resources used per unit of work that enter into the earned value metric, “there may be some room -- some wiggle room, say, for Peoples to inflate that [budgeted cost] figure.” *Id.* at 243-244. Mr. Seagle stated that Staff would have the power to ask for “raw historical data” from contracts and from in-house employees to verify the budgeted cost data. *Id.* at 244. In the evidentiary hearing in the second phase of this case, Mr. Seagle stated that the stipulated conditions framing the “hypothetical” scenario from the prior hearing are, in fact, exactly how the EV metric will work in its most recent iteration; that is, PGL will be responsible for generating both budgeted cost data and actual cost data. Mr. Seagle declined to say in the second evidentiary hearing whether the Company would have “wiggle room” to inflate the planned cost figures (“I

can't say one way or the other") under the same conditions, but he did say that he would seek to "investigate further" any "inconsistencies" he might find in the planned cost data portion of the EV metric. *Id.* at 653. He also said that he would request historic cost data going back to 2011 in order to check the reasonableness of the planned-cost figures, "[i]f Peoples was able to provide it and it was available." *Id.* at 644-645. Mr. Seagle's hesitation to directly answer the question should be weighed, though, in light of his more direct response ("there may be some room – wiggle room") at the previous hearing when the same conditions were posed in a "hypothetical" context.

The AG asserts that, logically, if PGL is providing planned cost data with no available historical record prior to 2016 to validate the reasonableness of that data, the Commission will not be able to trust that the "planned costs" part of the EV metric is meaningful. If the stated "planned costs" are systematically higher than is reasonable, then PGL could systematically improve the perceived quality of its performance by making its actual costs, compared to planned costs, look relatively better. An EV metric would be more potentially misleading than informative at this stage. It is apparent that the EV metric will not be meaningful until PGL develops at least two or three years' worth of actual cost data in the categories it proposes to track. Thus, as AG witness Coppola recommended, it may be "worth calculating and monitoring this metric at least on a provisional basis for a couple of years, after which a determination can be made if it is useful to continue it." AG Ex. 4.0 at 44. The information should be published publicly, similar to the Month-End Reports that PGL published for the last seven months of 2016. However, the Commission should not attempt to utilize an Earned Value Metric at this time for any decisional purpose.

(ii) In addition to the metrics proposed by the Company, what other metrics could and should be adopted?

(a) Peoples Gas' Position

Peoples Gas explains that the full list of metrics that Peoples Gas recommends be included in its quarterly SMP reports to the Commission is contained in Appendix A to Peoples Gas' Initial Brief. These metrics will give the Commission, Staff and stakeholders the most relevant information about how the SMP is progressing and how Peoples Gas is performing. They will allow the Commission, Staff, and stakeholders to determine, in a readily-digestible format, whether the SMP is on schedule and on-budget.

Peoples Gas explains that Staff and CUB support the metrics that Peoples Gas recommends be included in its quarterly SMP reports. Staff states that its position has not changed since the first phase of this docket and it "finds no reason to take issue with the metrics proposed by the Company." CUB notes that Peoples Gas has expanded on the metrics that it will include in its quarterly reports and "these additional metrics are important additions to effective Commission oversight and monitoring of the SMP and should be adopted." Two of those additional metrics are related to the pilot program jointly developed by Peoples Gas, CUB, and EDF, under which Peoples Gas will use leak flow rate data as an additional factor to prioritize neighborhood work. Those two metrics are:

- A metric that reports a list of the neighborhoods that are re-prioritized based on the result of leak flow rate data; and
- A metric that measures annual methane leak flow rate reduction based on the mileage of retired pipe and the leak flow rates estimated for those miles using advanced leak detection technology and leak quantification methods.

Peoples Gas requests that the Commission support Peoples Gas' development of and reporting on these two additional metrics in addition to those listed in Appendix A to Peoples Gas' Initial Brief.

The AG continues to press for the inclusion of at least 11 additional metrics in Peoples Gas' quarterly SMP reports, including Public Improvement/System Improvement projects completed, a list of segments and services replaced with an UMRI ranking of 5 or greater, and percent improvement in contract labor efficiency from the 2015 baseline. These metrics Peoples Gas recommends be included in the SMP reports will give the Commission, Staff and stakeholders the most relevant information about how the SMP is progressing and how Peoples Gas is performing. They will allow the Commission, Staff, and stakeholders to determine, in a readily-digestible format, whether the SMP is on schedule and on-budget. The same cannot be said for the AG's additional metrics, and that is why Peoples Gas does not support their adoption.

The AG argues that its additional metrics should be included in the quarterly SMP reports because Staff witness Mr. Seagle, who has served as Staff's point person on SMP reporting metrics, has testified, in the absence of any context, that some of the metrics "could be useful" or "may be useful." Tr. at 658-660. The AG's reliance on Mr. Seagle's supposed admissions is misplaced. While Mr. Seagle may have acknowledged in his live testimony that certain metrics have potential value, that does not mean that the metrics will aid the Commission, Staff and stakeholders in their understanding of the most important aspects of SMP performance. Notably, Staff did not support these additional metrics.

The City continues to push for a lengthy list of reporting metrics for the SMP. Much of this data is granular, operational information (e.g., ADA, asphalt, or re-sodding information) that Peoples Gas already provides to the Chicago Department of Transportation ("CDOT") pursuant to a cooperation agreement that Peoples Gas and the City negotiated and executed. If Peoples Gas were to include such operational-level data in Peoples Gas' quarterly SMP reports, it would be of limited value to the Commission, Staff and stakeholders because it would provide little insight into how the SMP is progressing and how Peoples Gas is performing. Accordingly, Peoples Gas continues to oppose the inclusion of this information in its quarterly SMP reports.

The City recommends two additional reporting items: first, the sources of information for each projection contained in the quarterly SMP reports and second, if there is a variance between projected and actual costs that exceeds 15%, an explanation and analysis of the variance. Peoples Gas does not support these additional reporting requirements. Peoples Gas has already committed to file quarterly reports on the SMP containing a comprehensive suite of metrics, and Staff is supportive of Peoples Gas' recommended metrics. The reports will be filed on eDocket in this docket, and Peoples

Gas believes they will provide the Commission, Staff, and other stakeholders such as the City with relevant information about how the SMP is progressing and how Peoples Gas is performing.

(b) Staff's Position

Staff's position on this issue remains unchanged from Phase I. Staff Ex. 5.0REV at 5-6. Staff finds no reason to take issue with the metrics proposed by the Company.

(c) AG's Position

The AG's discussion of this issue is included in Section VI.B.1.F. above.

(d) CUB's Position

CUB urges the Commission to adopt the associated metrics PGL has agreed to provide, which consists of the following:

- A metric that reports a list of the neighborhoods that are re-prioritized based on the result of leak flow rate data; and
- A metric that measures annual methane leak flow rate reduction based on the mileage of retired pipe and the leak flow rates estimated for those miles using advanced leak detection technology and leak quantification methods.

CUB avers that these additional metrics will not only facilitate the Commission's review of the Pilot, but will provide the Commission with additional leak rate data so the Commission can better examine trends in leak abatement.

(e) City's Position

The City maintains that the Commission must order robust, ongoing, public reporting of SMP performance metrics as a key element of the Commission's SMP oversight. PGL's problematic execution of SMP (and its predecessor, AMRP) highlights the need for a strong, transparent reporting regime, especially when coupled with SMP's unprecedented scope and cost. In addition, the City takes note of PGL and Staff's Phase II agreement on utilization of consultants to assist Staff in SMP management oversight and in QIP proceedings. That proposal further supports the importance of prospectively requiring detailed reporting and the availability of SMP data.

The City believes one way the Commission could ensure strong performance reporting would be to renew the reporting regime established in the Commission's Interim Order. The Company was able to comply with Interim Order reporting and it offered a valuable, regular set of key metrics to all stakeholders. The City does recognize, as PGL points out, that many Interim Order metrics are included in the Company's Phase II proposal. Nonetheless, the City maintains that a simple, reasonable method of specifying performance metrics going forward would be to simply reinstate the Interim Order reporting metrics and time interval, supplemented by other metrics supported by the record evidence.

Even though the City asserts the continuing value of the Interim Order's reporting scheme, it acknowledges that the parties, including the City itself, also presented

evidence on other reporting frameworks and requirements. The City argues that the Commission should categorize new performance reporting requirements in one of two ways: Certain elements of the Commission's analysis and ordering language should be general principles and framework requirements of an effective and robust performance reporting regime. These general principles are just as important as the detailed set of metrics ordered given that the SMP will continue for many more decades. The second category of reporting requirement is, of course, a detailed list of actual performance metrics that the Company will publicly report on a regular basis.

The City's review of the record provides ample bases for a robust regimen of metrics and reporting. New needs defined by Phase II testimony on implementation performance, data needs for new regulatory tasks, and crystallized data access concerns, provide further support for enhanced reporting. The evidence in the current record supports an order requiring both robust and detailed reporting that matches the current stability and evolution of the SMP, as the Company works to improve implementation, but also an order requiring the Company to adhere to certain performance reporting principles, such as transparency and availability of underlying data, so that future performance reporting can evolve as the SMP itself evolves.

After discussing the record evidence and its overall views on performance reporting, the City describes each of the general principles and framework requirements it considers essential. No party, including the Company, appears to object to inclusion of such principles in the Commission's order. First, it states the importance of frequent reporting, with a frequency interval included in the Commission's order as well as a mechanism for adjusting frequency if changed circumstances demand a different interval. The City believes monthly reporting is appropriate, especially given a trend toward longer SMP construction seasons and the Company's ambitious annual schedule. However, the City does not object to quarterly reporting, with certain items reported bi-annually or annually. Both Staff and PGL agreed on a quarterly reporting interval. The City argues, however, that this quarterly interval must also be paired with a mechanism for adjusting reporting frequency in the future so that the Commission's required reporting can adjust to an evolving program. Such a mechanism is consistent with the City's testimony on its "wait and see approach" to program performance and evaluation.

Second, the City discusses its fruitful discussions and cooperation with the Company and urges the Commission to acknowledge the importance of this cooperation by an order principle of continued data reporting by PGL to CDOT, where a metric concerns CDOT operational needs. The City acknowledges that specific data reporting requirements have been agreed to by CDOT and PGL, and affirms the effectiveness and value of this effort by PGL and CDOT. However, the City also distinguishes between metrics that yield only CDOT-associated benefits and metrics that are beneficial for overall program oversight and that the former will never be an adequate substitute for the latter. City Ex. 4.0 at 8:136-139. As such, the Commission should order continued data sharing directly between PGL and the City, to ensure that such cooperation has the Commission's authority behind it, but also distinguish such bilateral reporting as secondary to public performance reporting to the Commission itself.

Third, the City emphasizes the importance of sufficiently granular and available data reporting. CDOT witnesses repeatedly note the value of granular data, especially at this stage of SMP, where all parties are looking to understand project cost drivers. For example, if sufficiently detailed, granular data is available, the aggregated data of less frequent (such as quarterly) reports can provide information that can be “unpacked” for oversight purposes. City Ex. 4.0 at 12-13:236-241. PGL states that it does “not commit to disaggregate (by time period or relevant performance unit) accumulated data underlying the reporting items shown in PGL Ex. 7.1.” City Cross Group Ex. 3.0 at PGL_007275 (DRR to COC 4.05). Staff acknowledges that a utility “might decline to disaggregate summary information or to produce more granular data where the utility does not routinely collect, maintain or retain the data in disaggregated form.” City Cross Group Ex. 2.0, DRR to City-Staff 5.4. Given these statements, the City urges the Commission to ensure that the Final Order explicitly recognizes the value of appropriate and available granularity and ensures that if PGL does not disaggregate particular data when reporting, it could do so if necessary and appropriate, such as at the request of Staff or a Staff consultant or in the course of a Rider QIP reconciliation proceeding.

Regarding specific metrics to be reported going forward, the City maintains the value in renewing the Interim Order reporting requirements as well as adopting the set of metrics contained in City Ex. 1.6. However, the City observes that over the course of this proceeding, the parties’ positions on performance reporting have evolved. The City now believes that the parties’ positions, especially as between the City and PGL, are substantially closer and now overlap on the majority of specific metrics. The City accepts usage of PGL Ex. 7.1, in conjunction with Appendix A to PGL’s Re-Hearing Initial Brief, as a workable reporting template. The City also notes the consensus among the parties for filing all SMP reports on e-Docket.

However, the City argues that at least two metrics must be added to the PGL Ex. 7.1 and Appendix A proposal. First, the Company does not clearly state that it will disclose the source of information on which projections are based each time it files its performance reporting. City Cross Group Ex. 3.0 at PGL_007245 (DRR to COC 4.02). The City notes that this was a requirement under the Interim Order and is not burdensome. Second, the Company states that stakeholders will be able to derive variances between actual performance and projections. But the City argues this assurance is insufficient and urges the Commission to establish a metric reporting a clear, specific explanation and analysis whenever a variance of greater than 15 percent occurs between actual and projected data. The City sees as insufficient reliance on Staff’s commitment to “work with the Company...[to] determine if any additional analyses are necessary...where a variance occurs...” The City regards variance analyses as particularly important at this stage of SMP implementation as the Company works to improve its implementation performance.

(iii) What is the appropriate way to quantify safety risks? What benchmarks can be used to track any increase or decrease to risk?

(a) Peoples Gas' Position

According to Peoples Gas, although it is not possible to specifically quantify the current level of risk in Peoples Gas' distribution system or the reduction in risk attributable to certain main replacement activities (*e.g.*, replacing one mile of main reduces risk by a certain percent), there is empirical evidence that cast and ductile iron mains pose risks and must be replaced sooner rather than later. PGL Ex. 10.0 at 9, *citing* PGL Ex. 5.2 at 6-9, 47-48. Additionally, maps comparing pre- and post-upgrade leak rates illustrate the substantial performance gap between 19th and early 20th century materials and technology and the far superior performance of modern materials and construction techniques.

Further, PHMSA's 2011 Call to Action urges gas system operators to accelerate the replacement and repair of vulnerable materials, and identifies cast and ductile iron as vulnerable. PGL Ex. 10.0 at 9, *citing* PGL Ex. 5.0 at 9, 31-32. Also, the 2007 Kiefner Study recommended the accelerated replacement of all 4-inch, 6-inch and 8-inch segments because pipes of this size have accounted for over 90% of the instances of breaking and cracking. PGL Ex. 10.0 at 9. Approximately 89% of Peoples Gas customers on the low pressure system receive service from such pipes. *Id.* at 9-10, *citing* PGL Ex. 5.2 at 7-8.

The SMP metrics that Peoples Gas proposes to report on, including total number of miles of main installed, total number of miles of main retired, and total number of services replaced, will provide the Commission and the public with assurance that the system is being made safer with each construction season. Further, less leaky mains are safer mains, so Peoples Gas' annual reporting on weather-normalized leak rates will provide a helpful guide for judging the SMP's progress toward a safer system. In response to testimony from other parties, Peoples Gas has proposed additional leak rate metrics in Phase II of this docket. These leak rate metrics are also listed on Appendix A to Peoples Gas' initial brief.

(b) Staff's Position

Mr. Hesselbach testified that replacing at-risk main with modern polyethylene main reduces risk. Mr. Hesselbach provided a list of other ways that SMP will make the system safer. For example, every new service will now have an excess flow valve, which is a safety feature, and it is generally safer to have meters on the outside because they are more readily accessible in emergencies. Finally, he noted that it is not possible to quantify the percent decreasing risk that is inherent in replacing main. PGL Ex. 5.0 at 57-58. Mr. Seagle found no reason to disagree with the assertions made by Mr. Hesselbach on the issue. Staff Ex. 5.0REV at 6-7.

(iv) How will changes in risk level as a result of replacement be predicted and tracked?

(a) Peoples Gas' Position

Peoples Gas' position on the quantification of the level of risk in its system is contained above.

(b) Staff's Position

Mr. Hesselbach testified that every mile of at-risk cast and ductile iron main that is replaced with modern plastic pipe will reduce the risk of the Company's overall distribution system. PGL Ex. 5.0 at 58. Mr. Seagle responded to Mr. Hesselbach's testimony on this issue. Mr. Seagle found no reason to disagree with the assertions made by Mr. Hesselbach on the issue. Staff Ex. 5.0REV at 8.

(v) How will the City's impact on the project (e.g., extra costs in permitting, scheduling and remediation requirements) be monitored and tracked?

(a) Peoples Gas' Position

Peoples Gas does not oppose reporting on the City's impact on the SMP. Peoples Gas explains that if the City passes new rules or regulations that impact the SMP's cost positively or negatively, Peoples Gas is not opposed to submitting an estimate of the financial effect of such regulations as part of its regular metrics reporting. PGL Ex. 5.0 at 60. As for the proper baseline, if the Commission requires reporting, Peoples Gas proposes the status quo (in terms of regulations in place) as of the date an Order is issued in this case. PGL Ex. 11.0 at 26.

(b) Staff's Position

Mr. Hesselbach testified that, if in the future the City of Chicago implements new rules or regulation that would impact SMP costs either in a positive way or a negative way, the Company will prepare a financial estimate of the impact of the new rules or regulations as part of its regular metric reporting. PGL Ex. 5.0 at 60. Mr. Lounsberry found no reason to disagree with the statements made by Mr. Hesselbach on the issue. Staff Ex. 4.0 at 22.

g. Commission Analysis and Conclusion

The Commission adopts the reporting requirements as agreed to by Peoples Gas and Staff and as reflected as Appendix A in the Company's Initial Brief. This list includes the two additional metrics that were proposed related to the advanced methane detection pilot program in conjunction with CUB. The Commission finds that more information is required concerning the scope, development and the progress of the SMP. The Commission also adopts the additional metrics proposed by Peoples Gas. This includes a work/quantity drawn-down curve showing total miles of retired material, on an annual basis a graph reflecting weather normalized leak rates and status of spending compared to the annual and three year budget plan.

The Commission also finds the following 5 metrics suggested by the AG to be useful in assessing the progress and efficiency of the SMP. Peoples Gas shall report to the Commission the following metrics on a quarterly basis.

1. PI/SI projects completed, number of miles of main, services, and meters installed and retired with related capital expenditure;
2. A list of segments and services replaced with an UMRI ranking of 5 or greater under the System Improvement Program;
3. The neighborhoods completed during the past year or the main segments replaced and the forecasted neighborhoods or segments for the coming three-year plan with related quantities and cost projections;
4. A list of remaining neighborhoods to be completed with related miles of pipe, services, and meters to be replaced, along with the respective UMRI, and other factor rankings, and the projected timeline and cost to complete remaining neighborhoods; and
5. Percent decline in annual O&M expense for mains & services to show cost savings from replacing old high maintenance mains and services with new pipe. AG Ex. 4.0 at 42:754-43:780.

Staff is also proposing an EV metric to measure the value of completed work. While Peoples Gas has indicated that some of this information would be difficult to provide, the Company could provide it. This metric was recommended by Liberty as well. The Commission concludes that the Company is required to prepare an EV metric as proposed by Staff. The Commission directs the Company to work with Staff to establish the specific parameters of such a metric, to ensure the metric provides the information Staff, in proposing the metric, sought to receive. Peoples Gas shall submit a compliance filing describing the parameters of the EV metric as agreed upon by Staff and Peoples Gas to measure the value of completed work. The Commission understands the Company's and Staff's position that it is difficult to quantify the risks and that the removal of at risk pipes and mains along with the reporting metrics will help the Commission to track the reduced risks and the progress of the SMP.

The Commission declines to direct Peoples Gas to report on the additional metrics proposed by Intervenor.

The Commission encourages the City and Peoples Gas to continue to communicate about the information that is important for the coordination of the SMP. This should include providing the City with the information that is important to the City, but not necessarily important to the Commission in evaluating this project. The Commission does agree that changes in City regulations can affect the SMP's cost and any change should be reported to the Commission concerning the City's impact on the cost of the SMP.

2. Report Frequency and Content

a. Peoples Gas' Position

Peoples Gas recommends reporting on a semi-annual basis. PGL Ex. 2.0R at 11. Staff originally recommended reporting on a monthly basis. Staff Ex. 2.0 at 14-15.

Peoples Gas explains that monthly reporting would not assist the Commission in overseeing the SMP, and it would therefore waste resources that could otherwise be devoted to the project itself. PGL Ex. 2.0R at 11. Analyzing monthly data, as some parties have proposed, will often appear to show trends that are the result of data collection methods, and will not provide any actual changes in program performance. *Id.* Peoples Gas further explains that this is particularly true for cost data, which can swing from month-to-month depending on when vendor invoices are submitted and paid. *Id.* Peoples Gas concludes that requiring less frequent reporting will cover a long enough time period that such variations will be “smoothed out,” thereby lessening the likelihood of “bad” data -- and the potential for misinformed decisions based on that data. Peoples Gas explains that while it continues to believe that more meaningful conclusions about trends in data would be revealed by semi-annual reporting, it has agreed to Staff’s compromise of quarterly reporting on the metrics proposed by Peoples Gas and accepted by Staff. PGL Ex. 2.0R at 11. However, Peoples Gas argues that weather normalized leak rates should be reported annually because they rely on a full year’s worth of weather normalized data. *Id.*

b. Staff’s Position

Staff initially recommended monthly reporting on all adopted reporting metrics for the duration of the SMP. Staff Ex. 2.0 at 15. The Company opines that analyzing monthly data is neither particularly helpful nor informative because program performance can be volatile from month-to-month, thus giving the false perception of positive or negative trends in SMP progress. PGL Ex. 2.0R at 10. The Company further suggests it is more useful to provide information on a semi-annual basis.

Staff is of the opinion that there is value in monthly reporting. Staff also understands, however, that a single month of data, viewed in isolation, could suggest a positive or negative trend in program progress when in actuality the perceived trend would level out if data is considered over a longer timeframe. As a compromise, Staff recommends reporting all data on a quarterly basis. Peoples Gas witness Hesselbach’s testimony appears to support such a compromise, as he testified that it may be reasonable to report quarterly on various metrics. *Id.*

c. AG’s Position

The AG notes that Peoples Gas asserts that it should not be required to submit monthly reports. PGL Ex. 2.0R at 11. Staff, on the other hand, argues that the utility submit monthly reports throughout the duration of the main replacement program. Staff Ex. 2.0 at 15. The AG agrees with Staff that Peoples Gas should submit monthly reports.

The AG further observes that the City provides an excellent explanation as to why monthly reports are necessary. Specifically, the City points out that reporting on a semi-annual basis does not match Peoples Gas’ proposal for short term rolling three year plans. The City states that more frequent reports would provide data to establish performance baselines more quickly. If changes to enhance efficiency and cost-effectiveness are to be driven by results, performance refinements must be pursued as construction season data come in and not waiting until the following year. City-CUB Ex. 1.0 at 44. The AG emphasizes as City-CUB witness Cheaks noted, a reversal of reporting cannot be

justified, “as Peoples Gas’ program implementation has not yet achieved a stable, acceptable level of performance.” *Id.* at 38.

d. Commission Analysis and Conclusion

The Commission finds that some of the Company’s monthly data for the SMP may be misconstrued or show misleading trends. Staff is in agreement with the Company that reporting on a quarterly basis would level out the trends in the completed work for the SMP. The Commission directs Peoples Gas to report on a quarterly basis those metrics required by the Commission in Section VI.B.1.f., except that the Commission directs Peoples Gas to report on weather normalized leak rates on an annual basis. The Commission also directs Peoples Gas to file the reports on e-Docket in this docket and to submit a copy to the Commission’s Director of the Safety and Reliability Division or such other person as Staff directs.

3. Phase II – Review of Reporting

a. Is independent review of reports desirable or necessary?

(i) Peoples Gas’ Position

Peoples Gas explains that, as discussed in greater detail in Section IX.C.1, below, Staff witness Mr. Lounsberry recommended that the Commission allow Staff to hire two SMP consultants. The first SMP consultant would assist Staff in reviewing SMP costs that Peoples Gas seeks to pass through Rider QIP or put into base rates. Staff Ex. 4.0 at 2. The second SMP consultant would assist Staff in its oversight role with respect to the SMP. *Id.* If the Commission allows Staff to hire these consultants, and if the Commission accepts Peoples Gas’ recommendation that it file SMP reports with the metrics identified in Appendix A, Peoples Gas expects that the consultants will review those reports in the course of carrying out their responsibilities.

Peoples Gas recommended that its SMP reports be filed on e-Docket in this docket, which will allow the Commission, Staff, any SMP consultants that the Commission may hire, stakeholders and other members of the public to easily access them. All parties, including Staff, support, or at least do not oppose, this recommendation. Staff stated that “making reports publically available will provide sufficient opportunity for review by any stakeholder who wishes to do so.” The City noted that this issue should be considered resolved.

(ii) Staff’s Position

See Section IX.C.1., below.

b. How should stakeholders be included in reviewing plans and reports?

(i) Peoples Gas’ Position

As explained in Section VI.B, above, Peoples Gas’ SMP reports to the Commission, and the metrics included in those reports, will allow the Commission, Staff, any SMP consultants that the Commission may hire, stakeholders and other members of the public to track the most important aspects of the Company’s performance. PGL Ex. 5.0 at 56. They will give such interested parties critical information about how the program

is progressing and its cost on a per-unit basis. They will allow them to determine, in a readily-digestible format, whether the SMP is on schedule and on-budget. *Id.*

(ii) Staff's Position

Mr. Hesselbach testified that reports will be filed on the Commission's eDocket system and thus will be public available. PGL Ex. 5.0 at 56. It is Staff's opinion that making reports publically available will provide sufficient opportunity for review by any stakeholder who wishes to do so.

(iii) CUB's Position

CUB supports the City's proposal that the Commission establish a firm procedure for periodic reviews that assure opportunities for stakeholder participation. CUB avers that this docket should not be the end of the conversation around SMP planning and implementation. CUB believes that the Commission should establish regular reviews to review progress of the SMP separate from the QIP reconciliation proceedings.

c. Should any review proceeding take place during the then current plan cycle, to ensure recommendations can be implemented in the next cycle?

(i) Peoples Gas' Position

Peoples Gas should be allowed to proceed with the SMP as proposed to demonstrate that it can manage the program efficiently and effectively. PGL Ex. 5.0 at 61. Peoples Gas' recommended quarterly reporting will enable the Commission, Commission Staff, any SMP consultants that the Commission may hire, stakeholders and other members of the public to view progress and track trends that can be reviewed on a broader programmatic basis. *Id.* If trends emerge that warrant a subsequent investigation, the Commission can open a new proceeding at that time. *Id.* Further, the Commission will still review all SMP expenditures for prudence in the annual reconciliation proceedings required by 220 ILCS 5/9-220.3(e) of the PUA.

(ii) Staff's Position

The Company intends to apprise the Commission and Staff of progress of the SMP through reports the Company will file on eDocket. Staff will review those quarterly and annual reports filed by the Company and will work closely with the Company to address any concerns that arise during the then current plan cycle. Should the need arise for a more formal review process, Staff will make a recommendation at the appropriate time.

d. Commission Analysis and Conclusion

Staff has recommended that it be authorized to hire two consultants to assist in the review of the SMP. The Commission believes with the help of consultants, the Staff will be in a better position to recommend to the Commission if an independent review is necessary during the current cycle or if more data should be compiled before an overall evaluation should take place. The Commission directs Staff to provide this information to the Commission, once a determination has been made. The Commission also notes that all Company reports will be filed on the Commission's eDocket system and be available to all stakeholders and the public. This will give all the parties an opportunity to review

the progress of the SMP. The Commission further directs Staff to review all quarterly and annual reports filed by Peoples Gas and to work closely with the Company to address any concerns that arise. Should there be a need for a more formal review process, Staff or any Intervenor should make recommendations to the Commission at the appropriate time.

VII. PROGRAM END DATES/SCHEDULE

A. Phase II – General Considerations Regarding Schedule

1. What are appropriate bases on which the Commission can determine if any schedule is appropriate and affordable?

a. Peoples Gas' Position

Peoples Gas explains that it has established a target end date for the SMP of 2035 to 2040. PGL Ex. 5.2 at 33. Establishing a target end date, rather than a fixed end date, will serve the dual purposes of providing a consistent basis for monitoring the cost and pace of the program, and giving Peoples Gas the flexibility to adjust to changes in PHMSA and other state or federal requirements, technologies, methods, resource availability and other factors. *Id.*

Peoples Gas supports extending the program with this new target end date of 2035-2040 based on: (1) a recognition that system safety is the imperative goal, (2) the need for flexibility and the efficiencies that this enables, and (3) a desire to mitigate bill impacts to the degree that the safety and reliability imperative is not unreasonably impacted. PGL Ex. 5.0 at 35. In short, the target end date must be no later than that which would unacceptably diminish the safety and reliability of the network. It should be noted that the decision to extend the target end date to 2035-2040 reflects a prioritization of work that addresses highest priority pipe replacement and related modernization activities first. *Id.*

As stated in Section II.B.1, above, Peoples Gas witness Mr. Therrien analyzed the approaches to gas main replacement projects currently underway at five peer utilities, KEDNY, ConEd, PGW, WGL, and BG&E. PGL Ex. 6.0 at 10-11. Mr. Therrien's peer group analysis revealed that all of the peer utilities have accelerated their pipe replacement efforts in response to federal and/or state regulatory directives. *Id.* at 6-7. Two of the peer group utilities, PGW and WGL, have revised existing accelerated programs to reflect a more accelerated target end date. *Id.* at 10.

Mr. Therrien also found that Peoples Gas' anticipated 25- to 30-year program length, anticipated to be completed by the year 2035-2040, is in line with the peer group. The peer group program lengths range from 20 to 48 years, as indicated in PGL Ex. 6.2.

b. Staff's Position

Mr. Hesselbach testified that the Company's target end date of 2035-2040 considered safety and reliability as an imperative goal. Mr. Lounsberry responded to Mr. Hesselbach's testimony on this issue and found no reason to take issue with any of the statements made by Mr. Hesselbach. Staff Ex. 4.0 at 15-16. Mr. Lounsberry also testified that his position was consistent with Staff witness Beyer's direct testimony in Phase I, in

which Mr. Beyer noted that the primary consideration in evaluating the Company's SMP is safety. *Id.* at 15. Mr. Lounsberry clarified that he was not addressing the issue of affordability of SMP. *Id.*

c. AG's Position

The AG's discussion of proposed end dates for the SMP is included in Section II.C.6.c, in Section III.B above, in Section V.B above, and in Section IX.B.4 below.

2. What is an appropriate target or fixed end date? How realistic is any date given broad-based assumptions and speculation inherent in any long-term date?

a. Peoples Gas' Position

According to Peoples Gas, a target end date of 2035-2040 allows for a reasonable pace of work and coordination among Peoples Gas, the City and other third parties. PGL Ex. 5.2 at 33-34. A target end date of 2035 to 2040 represents a 25% to 50% extension of the original timeline for the AMRP, which was scheduled to be completed in 2030. Establishment of a target end date is a matter of engineering judgment, and Peoples Gas' engineers have determined that a range of 2035 to 2040 is compatible with public safety and is consistent with PHMSA's demand to accelerate replacement of at-risk main. *Id.* A target end date of 2035 to 2040 is also consistent with the recommendations contained in the Kiefner Study, which identified 2036 as a reasonable end date for replacing all small diameter main.

A program of the SMP's magnitude and complexity presents challenges when it comes to determining an end date, but by setting a five-year window at the outset such uncertainties can be managed while at the same time setting reasonable expectations about program timelines. *Id.*

b. Staff's Position

Mr. Hesselbach testified that 2035-2040 is an appropriate target end date. He supported a five-year window for completion as opposed to a specific hard end date. He also testified that a target end date, as opposed to a fixed end date, allows for flexibility in dealing with changes in PHMSA requirements, technologies, methods, resource availability and other factors. He also testified that a fixed end date of 2053 would be inconsistent with the Kiefner Study, as it would extend the program by 20 years, as well as being inconsistent with PHMSA's Call to Action. Finally, he testified that the sooner the construction is completed the more cost efficient it will be for a number of reasons set forth in his testimony. PGL Ex. 5.0 at 35-38. Mr. Lounsberry responded to Mr. Hesselbach's testimony on this issue. Mr. Lounsberry found no reason to take issue with any of the statements made by Mr. Hesselbach on the issue. Staff Ex. 4.0 at 16-17.

c. AG's Position

The AG's discussion of proposed end dates for the SMP is included in Section II.C.6.c, in Section III.B above, in Section V.B above, and in Section IX.B.4 below.

3. Is an incentive based program lawful, feasible, and desirable? Should the Commission consider penalties and incentives for performance below or above a benchmark?

a. Peoples Gas Position

Peoples Gas explains that the QIP law allows Peoples Gas to recover its investments in qualifying infrastructure plant or “QIP,” provided that such investments are reasonable and prudent and do not exceed certain statutory caps. 220 ILCS 5/9-220.3. However, nothing in the QIP law allows the Commission to incentivize or penalize certain activity or performance in connection with QIP investments. *Id.*

Also, as discussed in Section V.B.5.b above, the PUA contains two provisions, only one of which is applicable to Peoples Gas, authorizing Illinois utilities to adopt a performance-based ratemaking model. 220 ILCS 5/16-108.5; 220 ILCS 5/9-244(a). Such a model allows for incentives and penalties for performance at, above, or below certain benchmarks, as this question suggests. That being said, both provisions of the PUA establish a process whereby the utility must take the first step in adopting performance-based rates by filing a petition with the Commission, and the Commission, in turn, must react to the petition. *Id.* The Commission cannot issue an order in this docket mandating that Peoples Gas transition to an entirely new and different ratemaking process.

b. Staff’s Position

Section 9-244 of the PUA, 220 ILCS 5/9-244, allows utilities to seek an alternative to rate of return regulation. Whether an incentive-based SMP program is an appropriate and allowable alternative to rate of return regulation will be determined in a docketed proceeding if and when the utility in question elects to file a petition pursuant to Section 9-244. See 220 ILCS 5/9-244(a) (Commission may adopt a an alternative rate regulation plan “on petition of a[] ... gas public utility[,]” but not apparently on its own motion). Staff offers no opinion on the lawfulness, feasibility or desirability of an alternative to rate of return regulation for the SMP, as no such alternative has been proposed. Staff notes, however, that a utility cannot be forced against its will to adopt alternative rate regulation. In addition to the requirement noted above that an alternative rate regulation plan may be adopted only “on petition of a[] ... gas public utility[,]” Section 9-244 further provides in relevant part that “.. [t]he utility shall have 14 days following the date of service of the order to notify the Commission in writing whether it will accept any modifications so identified in the order or whether it has elected not to proceed with the program.” 220 ILCS 5/9-244(a)-(b).

4. Commission Analysis and Conclusion

The Commission notes that any time there is a project this size and scope, many variables can affect the length of the program. Peoples Gas has proposed a target end date of 2035-2040. According to Staff, the primary consideration in evaluating the Company’s SMP is safety. Both PHMSA and the Kiefner Study advocate removal of at-risk pipes sooner rather than later. Any proposal on a long term project is subject to some variations in scope and cost. The Commission finds that the Company’s proposal takes into account safety and reliability in the completion of this project. The three year rolling

plan allows for flexibility while still having a targeted end period. This also gives the Commission a better opportunity to review the overall cost and rate impacts of the SMP.

The Commission understands that under Section 9-244 of the PUA, utilities are allowed to seek an alternative to rate of return regulation. The Commission notes that, as discussed above, Peoples Gas would have to petition the Commission to proceed under this Section and the Company has not indicated that it will be requesting an incentive based program.

B. PGL's Target End Date

1. Peoples Gas' Position

Peoples Gas proposes a target end date for the SMP of 2035 to 2040. PGL Ex. 1.0R at 20. The Company argues that establishing a target end date, rather than a fixed end date, will serve the dual purposes of providing a consistent basis for monitoring cost and pace of the project, on the one hand, and allowing flexibility to adjust to changes in PHMSA requirements, technologies, methods, resource availability and other factors, on the other. *Id.* A target end date of 2035 to 2040 is consistent with the recommendations contained in the 2007 Kiefner Study, which identified 2036 as a prudent end date. PGL Ex. 1.0R at 20; Staff Ex. 1.0 at 5. This target also allows for a reasonable pace of work and coordination among Peoples Gas, the City, and other third parties. *Id.*

2. Staff's Position

Staff points out that the Company proposes a target end date rather than a fixed end date for SMP. The Company proposed the target end date be 2035 to 2040. PGL Ex. 1.0R at 20. In response to Staff discovery on the issue, the Company stated that it believes that establishing a fixed end date for the SMP would provide little value and would reduce the flexibility to adjust the program over time as technologies, methods, resource availability and other factors change. Staff notes that establishing a target end-date for the SMP would provide a consistent basis for modeling and monitoring the cost and pace of the project and that Peoples Gas would support this.

Staff claims that a SMP target end date for modeling and monitoring purposes should reflect the serious nature of the PHMSA Call to Action, balanced with consideration for prudent resource management and reasonable customer impacts. The Kiefner Study identified 2036 as a prudent completion date for replacing the 8-inch and smaller mains that serve approximately 90% of Peoples Gas' customers. Continuing at Peoples Gas' current pace of work would result in project completion around 2040. Therefore, Staff states that an AMRP target end date within the 2036-2040 range would be realistic and provide a proper focus for modeling and monitoring. Staff Ex. 1.0 at 5. Staff does not oppose the Company establishing a target end date for SMP rather than a fixed end date, but takes no position on whether the target date of 2035 or 2040 is reasonable. Staff Ex. 1.0 at 6.

3. AG's Position

The AG states that the Commission should adopt its proposal, first stated in the Section V.A. above, to limit main replacement expenditures to \$130 million compounded at 3% annually. As the AG notes, based on that expenditure level and an estimated total

program cost of \$9.69 billion, Mr. Coppola estimated that the main replacement program would be completed in 2053, as a target end date. The AG asks the Commission to refer to its longer discussion on this topic in Section V.A. above.

4. Phase II

a. What are the risks associated with extending the program end date?

(i) Peoples Gas' Position

Peoples Gas explains that it recommends extending the program beyond its original 2030 end date, which assumed a 20-year program. PGL Ex. 5.0 at 35. That extension would moderate the annual financial impact on customers without, in Peoples Gas' engineering judgment, unreasonably deferring the SMP's safety benefits. This revised duration is consistent with the pace of the current three-year plan. *Id.*

The AG proposes alternative plans for the SMP, all of which would decelerate Peoples Gas' replacement of at-risk pipe in its system, and present unreasonable and imprudent risks to Chicago residents and businesses. *See generally* AG Exs. 4.0 and 7.0.

Having at-risk pipe in the ground presents safety risks to Chicago residents. PGL Ex. 5.2 at 34-35. As incidents around the country have unfortunately demonstrated, despite best intentions by operators and regulators as long as vintage cast iron and ductile iron mains remain in place, there is enhanced danger of a catastrophic incident. *Id.* Replacing at-risk pipe eliminates the risk posed by vintage materials. *Id.* Furthermore, increasing the system pressure from low to medium and locating meters outside of homes and business provides key safety benefits by allowing public safety individuals, such as fire fighters, to quickly cut off the supply of gas during emergency situations. *Id.* Federal guidance on the subject and utilities nationwide recognize this risk; slowing the pace of the SMP any further would be contrary to PHMSA's Call to Action and the approaches adopted by Peoples Gas' industry peers. *Id.*

(ii) Staff's Position

Mr. Hesselbach testified that having at-risk pipe in the ground presents safety risks to the residents of Chicago. He further testified that as long as vintage cast and ductile iron mains remain in place "there is enhanced danger of a catastrophic incident" and slowing the pace of SMP would be contrary to PHMSA's Call to Action and the approach used by the Company's industry peers. PGL Ex. 5.0 at 33-34. Mr. Lounsberry responded to Mr. Hesselbach's testimony on this subject and found no reason to take issue with any of the statements made by Mr. Hesselbach. Staff Ex. 4.0 at 14-15.

(iii) AG's Position

The AG's discussion of proposed end dates for the SMP is included in Section II.C.6.c, in Section III.B above, in Section V.B above, and in Section IX.B.4 below.

5. Commission Analysis and Conclusion

Peoples Gas points out that as long as vintage CI/DI mains remain in place, it presents a safety risk to the residents of Chicago. There have been catastrophic events

that have taken place around the country due, in part, to vintage gas pipes. Peoples Gas recommends a target end date of 2035 to 2040 for the SMP. The Commission finds that there will always be some fluctuation in a major project like the SMP and having a fixed end date could lead to inefficiencies or unsafe work. The Commission notes that safety and reliability are paramount in completing this project. Further, a target end date of 2035 to 2040 is consistent with the recommendations of PHMSA and contained in the 2007 Kiefner Study. It also allows for a reasonable pace of work as well as coordination of the work with the City and other third parties. Therefore, the Commission approves a target end date of 2035 to 2040 as proposed by Peoples Gas.

C. AG's Proposed Fixed End Date(s)

1. Peoples Gas' Position

According to Peoples Gas, the AG advocates for a fixed end date for the SMP of 2053. AG Ex. 2.0R at 40-41. Peoples Gas argues that the AG chose the 2053 end date because it would allow the SMP to be undertaken for \$130 million per year with 3% annual escalation. *Id.* Peoples Gas explains that extending the SMP to this degree -- almost twenty years beyond its original end date -- would be inconsistent with PHMSA's 2011 Call to Action, which urged state regulators to "review [their] current replacement plans for the highest risk pipelines...and consider what would be necessary to accelerate those plans." PGL Ex. 2.0R at 15. Peoples Gas concludes that the AG's proposed extension of the project is contrary to the General Assembly's recognition of the importance of Rider QIP-eligible projects, as expressed in the enacting legislation for Rider QIP. PGL Ex. 2.0R at 15-16.

2. Staff's Position

Staff's position is discussed in detail in Section VII.A.2, above.

3. AG's Position

The AG argues that Peoples Gas improperly claims that the AG advocates a fixed end date for the MRP. The AG explains that Mr. Coppola assumed a 2053 completion date based on his recommended annual expenditure level and his assumption regarding total program cost. Mr. Coppola performed this analysis as part of his effort to determine overall rate impact on customers. It was not intended to set a fixed end date for the program.

4. Phase II

a. Is the current pace sustainable or should the program be slowed?

(i) Peoples Gas' Position

Peoples Gas believes that the proposed pace of the SMP is sustainable and optimal, both over the term of the current three-year plan and over the longer term. PGL Ex. 5.2 at 35-36. In 2016, which was the first year of work under new management's three-year plan, Peoples Gas took the opportunity to bolster program structure and fortify policies and procedures that will pave the way for long-term success. *Id.* In 2016 Peoples Gas fell short of its original 2016 goals in some areas as a result of a conscious decision

to proceed deliberately while focusing on ensuring the program was on a good footing. *Id.* For example, during the second quarter of 2016, there was an intentionally slower start-up of work than originally planned in order to ensure proper front-end planning was completed before field mobilization and that contractors were properly focused on safety, quality and care for the Chicago communities in which they work. During that period, Peoples Gas focused its priorities on continuing to build its relationships with its customers and the City rather than initiating additional projects that might not reach a satisfactory state of restoration before the winter season. Peoples Gas anticipates that its efforts to institute process improvements during 2016 will allow better execution in future years. *Id.*

Some variance from planned quantities in any given year is to be expected with a complex infrastructure program that is dependent on many variables, some outside of the Company's control, including coordination with third parties. *Id.* Third party projects emerge and are cancelled, plans for paving streets or replacing sewer and water lines are adjusted, just as operating conditions often change for Peoples Gas when the Company is executing its operations and maintenance activities. Given the dynamic nature of the work, the three-year plan approach provides flexibility to address current year variances by modifying future year goals. This flexibility is balanced with ensuring that trends are analyzed, understood and incorporated into planning decisions, ensuring that mitigating actions are taken and recovery plans developed as necessary and ensuring that any long-term impacts are recognized. *Id.*

(ii) Staff's Position

Mr. Hesselbach testified that the proposed pace for SMP is sustainable over the three-year term of the rolling plan and over the long term. PGL Ex. 5.0 at 39-40. Mr. Lounsberry responded to Company witness Hesselbach's testimony and found no reason to take issue with any of the statements made by Mr. Hesselbach. Staff Ex. 4.0 at 18.

(iii) AG's Position

The AG's discussion of proposed end dates for the SMP is included in Section II.C.6.c, in Section III.B above, in Section V.B above, and in Section IX.B.4 below.

5. Commission Analysis and Conclusion

The Company points out that with the three year term of the rolling plan, it gives Peoples Gas the opportunity to make adjustments and necessary changes as the program progresses. According to Peoples Gas and Staff, this flexibility helps in making the pace of the SMP more sustainable over the three year term and over the long term. The Commission agrees with the need for flexibility on such a large scale project and approves Peoples Gas' recommended target end date of 2035 to 2040 for the SMP.

VIII. WORKFORCE PLANNING

Staff recommends that the Commission find that the Company is responsible for determining the composition of its workforce. Staff Ex. 3.0 at 10-11. Both Peoples Gas and Local 18007 agree with this recommendation. No other party commented on this issue. Therefore, the Commission makes no finding regarding Peoples Gas' workforce.

IX. POST-DOCKET MATTERS

A. Additional Workshops

1. Peoples Gas' Position

Peoples Gas explains that Staff witness Mr. Lounsberry advocates additional workshops on rate impacts and the resources available to lessen impacts on vulnerable customers following the Commission's final order in this proceeding. Staff Ex. 7.0 at 10. Mr. Lounsberry proposes that Staff prepare a report following those workshop(s) "making recommendations for further possible action within the confines of existing laws and regulations." *Id.* Mr. Lounsberry does not provide any particular justification for such workshops.

Peoples Gas explains that it opposes this proposal. Cost, scope, schedule and other issues surrounding the SMP -- including rate impacts -- *have* been thoroughly addressed in this docket and the workshop process that preceded it. *Id.* The six full-day workshops held in the spring of 2016 gave all interested stakeholders ample opportunity to comment on and raise questions about the current status and future direction of the program. *Id.* This docket has given those same stakeholders the opportunity to formalize their positions for Commission consideration, and Peoples Gas, the AG, CUB and the City have taken advantage of that opportunity. The parties have had ample opportunity to formulate and seek discovery since the workshops ended last March, and the intervenors have availed themselves of that opportunity. In fact, Peoples Gas answered hundreds of discovery requests containing over a thousand discrete subparts. Many of these data requests addressed rate impact issues. *Id.*

The Commission's supervisory jurisdiction over the SMP will continue in a number of proceedings where the Commission can determine whether Peoples Gas is making adequate progress on replacing at-risk mains in a reasonable and prudent manner. These proceedings include the annual Rider QIP reconciliation proceedings (three of which are currently pending and a fourth that will be initiated shortly after a decision is expected to be issued in this case). For these reasons, the Commission should decline Staff's proposal to immediately jump back into workshops following issuance of its order in this case. *Id.*

2. Staff's Position

Staff recommended the Commission direct Staff to hold one or more workshops following the Commission's final order in this proceeding to address the issue of rate impacts and the resources available to lessen those impacts on vulnerable customers. Staff Ex. 7.0 at 10. All parties who addressed this recommendation are opposed to it. The AG's arguments for rejecting additional workshop extend to more than three pages. Peoples Gas argues that all issues surrounding the SMP, including rate impacts, have been thoroughly addressed in this proceeding and in the workshops that preceded it. The City recommends against additional workshops and urges a Commission decision on affordability in this docket.

Staff continues to believe there is merit to workshops to address both the ways in which rate impacts can be ameliorated and the resources which are available to

vulnerable customers to address rate impacts. However, in light of the almost universal opposition to Staff's proposal, as an alternative to workshops Staff recommends the Commission adopt the recommendation of the City. Specifically, Staff recommends that the Commission order Peoples Gas to provide baseline metrics on affordability and to include updates in its annual reports, for periodic Commission reviews of Peoples Gas's gas utility service affordability.

As noted previously, the QIP spending limit is established by statute, and the Commission cannot lawfully depart from that limit. There is, however, some disagreement as to the intention of the General Assembly in enacting the QIP rider law. The AG argues that the Act reflects both an emphasis on service affordability and the requirement that utility service be least cost. While Peoples Gas suggests that the spending caps authorized by statute already strike an appropriate balance between safety and cost concerns. Moreover, it is evident that the total cost of the program is significantly higher than originally projected. In light of the high cost of the program, during the remaining term of the statute and as an alternative to workshops, Staff recommends the Commission gather metrics on rate impacts and customer affordability so that it will be in a position to provide the General Assembly with information that might inform their deliberations on whether to reauthorize or amend Section 9-220.3.

Staff does not, however, agree with the City that the Commission should dictate these metrics in its final order. Rather, in order to ensure that the information sought is data the Company is able to provide, Staff recommends the Commission direct the parties to work together to establish such additional metrics as are necessary to evaluate the impact of the SMP program on Peoples Gas customers over the next six years. As noted by the City, such metrics might include information on disconnections, arrearages and uncollectibles, as well as Peoples Gas's efforts to integrate affordability as a critical element of SMP program design and planning and to continue or expand its voluntary initiatives to moderate rate impacts. This type of reporting could potentially give stakeholders the opportunity to monitor the increase in customer bills as a percentage from a Commission-specified baseline and could also, potentially, provide an early warning that customers are unable to pay their gas bills by monitoring the number of disconnects both quarterly and annually. This reporting could also involve monitoring the amount of LIHEAP and/or PIPP benefits Peoples Gas's customers receive annually.

Staff further recommends the Commission direct Staff to provide the rate impact metrics to the Commission through a filing in this docket no later than 60 days after a final order is issued in this docket, and that Peoples Gas begin reporting on the agreed metrics in the next quarterly report following filing of the metrics. This process will allow input from all parties, which was a key objective of Staff's recommended workshop process. Additionally, it will result in reportable metrics which can inform future decision making, which addresses the concern expressed by parties that workshops would simply be additional discussion without action.

Staff further notes that additional reporting on data related to customer rate impacts for consideration by the General Assembly will dovetail nicely with the timing of other recommendations in this docket. By 2023, Peoples Gas will have completed two three-year cycles, giving the Commission ample data to evaluate the relative success of

the SMP; the Commission will have issued final orders in several QIP reconciliation dockets, which will provide a clear picture of average annual SMP expenditures as well as the prudence and reasonableness of those costs; the Company will have compiled more than five years' of data and presumably proceeded with an updated engineering study; and the CUB/Peoples Gas methane detection Pilot Program will be complete. Together, all of this information will provide the Commission with a complete picture of the SMP, including its success at targeting the highest risk pipe, the reduction to the risk of the system as a whole, and the rate impacts to customers. The Commission will thus be in a position to provide the General Assembly with wide-ranging and detailed information about the SMP which the General Assembly can and should consider when determining whether to reauthorize Section 9-220.3.

3. AG's Position

The AG notes that although Staff acknowledged that "the question of rate impacts is a legitimate source of concern to the Commission" Staff Ex. 7.0 at 10, it offered no position on customer affordability in testimony, arguing instead that the issue is settled by Section 9-220.3, and will be resolved in the briefing stage. Staff witness Lounsberry went only so far to say that "Staff understands there will be rate impacts and is concerned about whether their extent is properly understood and whether sufficient resources will be available to lessen those impacts on vulnerable customers as the SMP continues." *Id.* Ultimately, Staff's recommendation is for the parties to engage "in a discussion process", i.e., workshops, rather than a formal docket, as originally recommended by Staff in Phase 1 of this proceeding. *Id.* at 10-11.

As previously argued by the People in Phase 1 of this proceeding, the Staff Report, which serves as the foundation for the Commission-ordered issues addressed in this docket and in the re-opening, specifically recommended that cost and affordability of the SMP be addressed in the instant proceeding -- not in some future workshop setting or proceeding. Staff Report at 65. Staff's proposed plan of action will do nothing for current customers over the near term, and results in a green light for the Company's proposed SMP that, Staff acknowledges, may be unaffordable for an untold number of customers. The Commission should reject Staff's suggested approach.

The AG asserts that Mr. Lounsberry's recommendation is hopelessly vague, with the development of an agenda to come after the Final Order is issued, and no timeline for specific Commission action related to any workshop discussions. Like former Staff witness Gene Beyer's proposal in Phase 1 of this docket, Mr. Lounsberry's workshop proposal includes no recommendation as to how the workshop process would proceed after the close of this docket, or how long the workshop process would continue, following the Commission order in this proceeding. Staff Ex. 7.0 at 10-11.

The AG adds that such discussions have already occurred at the Commission-ordered workshops that preceded this docket, including specific discussions and forecasts of rate impacts under various spending proposals by both Peoples Gas and AG representatives. Tr. at 338-339. It is unclear how the future workshops Mr. Lounsberry seeks would differ in content than the discussions on rate impacts that already occurred at these prior workshops.

The AG argues that Mr. Lounsberry's ill-defined workshop process should be rejected because failure to make a finding in this docket on what the appropriate budget, rate impact and affordability of the PGL- and alternative AG-proposed SMP plans will ensure, once again, that PGL customers are stuck indefinitely on a path of continued rate increases and Rider QIP surcharges that are unaffordable for many PGL customers. Staff's view that rate impacts of the PGL spending plan should be studied later ignores the fact that PGL has presented a specific three-year plan that anticipates spending a specific budget range each year within that time frame. By approving that plan in this docket, without making a finding as to the rate impacts and affordability of those amounts, the Commission will have nevertheless implicitly or explicitly approved those specific spending levels and rate impacts. The fact remains that the Company's proposed spending levels, which amount to an increase over current SMP spending, will be deemed reasonable if the proposed PGL three-year plan is approved.

For all of these reasons, the People urged the Commission to reject Staff's recommendation to forego making a finding on appropriate SMP spending, rate impacts and affordability until the initiation of a workshop process after the close of this docket.

4. CUB's Position

CUB agrees with the City and PGL that additional workshops regarding the topic of affordability are unwise and would provide little value. CUB has determined that the record in this proceeding has been sufficiently developed on the issue of affordability. CUB sees the workshop recommendation as nebulous, lacking specificity, and failing to include a mechanism by which the Commission can act on the information informally shared in that setting. CUB concludes that it is therefore a waste of the parties' and the Commission's resources to go forward when the Commission has the information necessary to fully consider affordability considerations in the instant record.

5. Commission Analysis and Conclusion

Staff originally recommended that additional workshops concerning the SMP rate impact are necessary. Staff is now recommending that the Company provide information in its annual reports concerning Peoples Gas' gas utility service affordability. Staff is directed to work with Peoples Gas and all of the parties to establish such additional metrics that are necessary to evaluate the rate impact of the SMP on Peoples Gas customers. The Commission directs Staff to provide the rate impact metrics to the Commission through a filing in this docket no later than 60 days after a Final Order is issued, and directs Peoples Gas to provide baseline data on the agreed metrics in the next quarterly report following the filing of the metrics. Thereafter, the Company is directed to report quarterly on the agreed metrics and to include this information in its annual reports for Commission review of the Peoples Gas' gas utility service affordability.

B. Updated Engineering Study

1. Peoples Gas' Position

According to Peoples Gas, the AG is the only party that continues to advocate for an updated or additional engineering study of the SMP. Peoples Gas argues that an updated or additional engineering study is not needed at this time and notes that Staff

agreed. Peoples Gas contends that depending on how the first three years of the SMP unfold, it is very possible that the Commission may decide that an updated or additional engineering study is unnecessary; to order such a study now would be both premature and inefficient.

2. Staff's Position

In Staff's opinion, there is no demonstrated need to engage in additional engineering studies at this time. Instead, Staff recommends the Company's rolling three-year SMP plan, as modified by the findings in this docket, be approved and that the Company be given the opportunity to demonstrate – through the ongoing reporting process described herein – that it can effectively and efficiently manage the SMP before the Commission considers whether to update existing studies or seek new engineering studies. Staff recommends this issue be revisited after the Commission, Staff and all the stakeholders have the opportunity to review the Company's reports up to and including those documenting 2018 results.

3. AG's Position

The AG notes that earlier in this proceeding, it filed a motion asking that the Commission require Peoples Gas to conduct an independent engineering of its distribution system and its main replacement program. The AG points out that in Docket No. 06-0540, the Commission approved the merger between WPS Resources Corporation and Peoples Energy Corporation. As the AG notes, in its February 2007 Order approving that merger, the Commission imposed numerous conditions, including a requirement that Peoples Gas “pay for the professional fees and costs of an independent outside consultant with appropriate experience and expertise to (i) conduct a study of Peoples Gas' cast and ductile iron main replacement program and (ii) make recommendations regarding appropriate improvements to the program and its implementation.” *WPS Resources, et.al.* Docket No. 06-0540, Order, Appendix A at 5 (Condition 23) (Feb. 7, 2007). The Commission also ordered that Peoples Gas “conduct follow-up studies at five year intervals that shall: (i) determine the status of [Peoples Gas'] cast and ductile iron main replacement program; and (ii) make recommendations regarding appropriate improvements to the program and its implementation.” *Id.*

The AG argues that given the extraordinary cost of Peoples Gas' main replacement program, the Commission should order that the Kiefner Study be updated or that a new engineering be performed. The AG states that an updated or new engineering study would provide a different perspective that could be valuable after this proceeding concludes, one that addresses the relationship of safety concerns with the proper scope, pace, and schedule of the SMP. The AG claims that the Kiefner Study raised several critical issues, including what main replacements were required and which ones could be safely deferred, but that analysis is now almost a decade old. The AG argues that an updated Kiefner Study or a new engineering study can provide critical insight on whether that report's conclusions are still valid or if circumstances have changed and safety concerns require or permit a different approach. The AG states that in short, there is no rational reason for not seeking updated safety-related information about a project of this magnitude.

4. Phase II

- a. **Would new or updated engineering studies inform the Commission's ongoing monitoring of the program? If so, should these studies be funded by ratepayers or shareholders?**
- b. **Could new or updated engineering studies add insight into which main should be prioritized for replacement and which main replacements can be safely deferred? If studies are undertaken who should pay for the studies, ratepayers or shareholders?**

(i) Peoples Gas' Position

Peoples Gas explains that the AG and the City argue that Peoples Gas should immediately undertake a new or updated engineering study of the SMP. The AG moved to compel Peoples Gas to immediately undertake such a study early in this proceeding, but the ALJ denied that motion on August 17, 2016. *Notice of Administrative Law Judge's Ruling*, Docket No. 16-0376, Aug. 17, 2016. That decision was correct then, and it is correct now. Peoples Gas has explained in its testimony that while engineering studies are helpful in estimating the condition and remaining operating life for aging pipe, they are based on actual data for a very small portion of the pipe in question -- in Peoples Gas' case, over 1,500 miles of pipe. PGL Ex. 11.0 at 4-5. Given this limitation, the value of such analyses increases as the source data (*i.e.*, field experience) increase, and also as the opportunity to learn from peers' experiences and best practices increases. *Id.*

Staff has also recommended that Peoples Gas undertake a new or updated engineering study of the SMP, but unlike the AG and the City, Staff does not take issue with Peoples Gas' recommendation that the study be delayed. Staff Ex. 4.0 at 9. In supporting Peoples Gas' position, Mr. Lounsberry noted that Peoples Gas had "incorporated an updated risk-ranking model over the last two years, and therefore it would be prudent to defer any reassessment or updated studies until the revised risk ranking has been in place for a period of time and a sufficient data set has been developed." Staff Ex. 7.0 at 5-6. However, Mr. Lounsberry did request more specificity about when an engineering study should begin. *Id.* In response to that inquiry, and keeping in mind the contextual background on engineering studies provided above, Peoples Gas proposes that it be allowed to gather five years' worth of technical and programmatic performance data, and undertake a new engineering study in 2021. PGL Ex. 11.0 at 5-6.

Staff does not object to the timeframe proposed by Peoples Gas. Staff Initial Br. at 34. And as Mr. Hesselbach noted in his surrebuttal testimony, Peoples Gas is amenable to working with the new project management consultant that Staff has proposed to hire to verify the proper timing for such a study. PGL Ex. 11.0 at 5-6.

As for who should pay for a new or updated engineering study, it should be considered for recovery like any other expense in an appropriate rate proceeding.

(ii) Staff's Position

In Phase I, Staff opined there is no demonstrated need to engage in additional engineering studies at this time. Staff recommended this issue be revisited after the Commission, Staff and all the stakeholders have had the opportunity to review the Company's reports up to and including those documenting 2018 results. Mr. Hesselbach testified that it was his opinion that garnering five years' worth of data would provide the greatest value and insight for stakeholders. PGL Ex. 11 at 5. Mr. Hesselbach recommended that technical and programmatic performance data be compiled for the years 2016 through 2020, culminating in an engineering report and analysis in 2021. *Id.* Staff does not object to this timeframe for a new or updated engineering study, but recommends this issue be considered by the SMP management consultant Staff seeks to engage.

Staff sought more detail from the Company in the Company's rebuttal and surrebuttal testimony regarding when the Company foresees conducting a new or updated engineering study, (Staff Ex. 7.0 at 3-4), after Mr. Hesselbach indicated he thought Staff's recommendation that a study be performed in five years was reasonable. PGL Ex. 7.0 at 6. In his rebuttal testimony, Mr. Lounsberry clarified that his reference to five years was not a recommendation but rather an example. Staff Ex. 7.0 at 4. As noted in Section IX.B herein, the Company recommended compiling data for five years, culminating in a report in 2021.

Staff recommends that the timing of the engineering study be addressed by the SMP management consultant which Staff recommends that Commission order Staff to hire. Staff Ex. 7.0 at 6. With respect to the issue of cost recovery for a new or updated engineering study, it is Staff's position that the costs may be recovered as an expense by the Company subject to normal ratemaking rules

(iii) AG's Position

The AG points out that in Docket No. 06-0540, when the Commission approved the merger between WPS Resources Corporation and Peoples Energy Corporation, it did so subject to numerous conditions, including a requirement that Peoples Gas "pay for the professional fees and costs of an independent outside consultant with appropriate experience and expertise to: (i) conduct a study of Peoples Gas' cast and ductile iron main replacement program; and (ii) make recommendations regarding appropriate improvements to the program and its implementation." *WPS Resources, et. al.*, Docket No. 06-0540, Final Order, Appendix A at 5 (Condition 23) (Feb. 7, 2007).

In response to the Commission's directive, Kiefner submitted its resulting study of PGL's pipe replacement program on March 1, 2007. The Commission's Order in that merger case also ordered that Peoples Gas "conduct follow-up studies at five-year intervals that shall: (i) determine the status of [PGL's] cast and ductile iron main replacement program; and (ii) make recommendations regarding appropriate improvements to the program and its implementation." *Id.* Despite the Commission's Order, no follow-up studies were conducted.

The AG notes that the Kiefner Study did not conduct an in-depth analysis of the condition of Peoples Gas's mains. Rather, Kiefner described the scope of its work as an

analysis of PGL's CI/DI main replacement program. Kiefner was also tasked with making necessary recommendations to improve the program. AG Ex. 4.2 at 2-3.

The AG adds that rather than conducting its own in-depth study of the state of Peoples Gas's mains, the Kiefner Study analyzed work previously done by ZEI on behalf of PGL. ZEI conducted three studies for Peoples Gas, the first in 1981, the second in 1994, and the last in 2002. *Id.* at 4. Following the 2002 ZEI study, Peoples Gas conducted an internal review of the study and concluded that that "studies be conducted approximately every ten years in order to continually evaluate and update PGL's comprehensive CI/DI main replacement program. Future studies can incorporate additional maintenance and breakage data, as well as future cost data, technology changes and regulatory requirements." AG Ex. 7.1 at 11. Peoples Gas's internal review also adopted ZEI's recommendation that the CI/DI main replacement program be completed by 2050.

The AG states that despite the Company's own resolution in 2002 and the Commission's directive in 2007, no follow-up studies have been conducted since March of 2007. And more importantly, no in-depth study of the safety and condition of Peoples Gas system has taken place since ZEI carried out its last analysis in 2002. In light of this information vacuum, AG witness Coppola observed, "It has been more than 10 years since an engineering study of PGL's mains has been completed [, and] it is bad public policy to move forward on a project that has been estimated to cost as much as almost \$11 billion without an independent engineering study to define the parameters of the program." AG Ex. 4.0 at 6. Completing the engineering study would not be merely an academic exercise: Mr. Coppola noted in his direct testimony on re-opening that the Commission's order in PGL's 2009 rate case, Docket Nos. 09-0166/0167 (cons.), directing an acceleration of PGL's main replacement program from a 2050 completion date (PGL Ex. 7.1 at 8 (ZEI 2002 report)) to a 2030 completion date, lacked an "underlying independent engineering study that justified the acceleration" (AG Ex. 4.0 at 26) – which ultimately came at great cost to ratepayers, because the then-estimated cost of \$2.6 billion has since "mushroomed to as much as \$10 billion or more if the Company is not able to rein in historical cost trends." *Id.* at 26. Mr. Coppola further observed in his rebuttal testimony on re-opening that the absence of any "quantifiable measurement of risk" from the Company provides no information "for the Commission [to establish] an appropriate pace of replacement." AG Ex. 7.0 at 6.

To remedy these infirmities, Mr. Coppola thus recommended

that the Commission direct its Staff to engage a competent engineering firm of the caliber of Kiefner & Associates or Zinder Engineering, Inc. to perform an in-depth study of the technical state of the remaining CI/DI mains and services in the PGL gas system. The engineering firm should be tasked with the responsibility to make an assessment of a reasonable replacement rate for various pipe sizes, along with recommended completion dates that do not unnecessarily compromise the safety of the system. Like the audit recently conducted by The Liberty Consulting Group, the new

engineering study should be paid for by PGL but run independently by Staff. *Id.* at 22.

The AG states that PGL witness Hesselbach testified that a new engineering study would be “premature” and that “Peoples Gas should be given the opportunity to move ahead with its SMP plan and demonstrate that it works.” PGL Ex. 5.0 at 20. Mr. Hesselbach neglected to mention that the program, as re-defined following the Commission’s 2010 order in PGL’s 2009 rate case, is now in its seventh year. PGL’s plan calls for the program to be completed as early as 2035, meaning the program is as much as 28% complete already. By 2020, the program would be as much as 40% complete, with nearly an additional \$1 billion spent compared to today. PGL Ex. 5.3. As Mr. Coppola observed,

There is no reason to delay an engineering study well into the middle term of the program. A new engineering study needs to be done now before the Company continues on a very costly capital expenditure program. Once the investment dollars are spent, the proverbial genie can’t be put back into the bottle, and customers may have been paying unnecessarily higher bills. It does no one any good to find out five or more years from now that the program could have been configured differently. AG Ex. 7.0 at 22.

The AG adds that more importantly, there is no rational reason for waiting to conduct a new engineering study to give Peoples Gas “the opportunity to move ahead with its SMP plan and demonstrate that it works.” The effectiveness (or lack of effectiveness) of the implementation of PGL’s program has nothing to do with the state and safety of the utility’s gas mains. Although one assumes that the safety of the system improves as the utility removes relatively risky mains, PGL’s conduct of the main replacement program provides no logical basis for delaying performing a new engineering study.

Staff witness Eric Lounsberry agreed with this point. On cross-examination, Mr. Lounsberry testified that the purpose of a new engineering study would not be to “do an audit or [to] ascertain how well Peoples Gas is implementing the SMP.” *Tr.* at 602. Rather, Mr. Lounsberry stated that the purpose of the new study would be “similar to the Kiefner Study or the [ZEI] study would provide timings for removing certain size cast iron pipe.” *Id.* at 601.

The AG argues that the extraordinary cost of PGL’s main replacement program and resulting rate impacts that threaten many thousands of Peoples Gas customers’ ability to afford natural gas service, the Commission should order that the Kiefner Study be updated or that a new engineering study be performed. There have been no engineering studies of PGL’s mains since 2007. More importantly, there has been no detailed analysis of the condition of the utility’s system since the 2002 ZEI study, which is now 15 years old.

The AG observes that an updated or new engineering study would address the relationship of safety concerns about the proper pace of the SMP – which PGL has not otherwise explained, apart from vague allusions to its “engineering judgment.” See, e.g.,

PGL Ex. 5.0 at 36. The Kiefner Study raised several critical issues, including what main replacements were required and which ones could be safely deferred, but that analysis is now over a decade old, and the state of PGL's distribution system has surely changed, "including large segments of pipe that have been replaced, a longer history of pipe cracks and breaks, serious cost overruns, a discredited management team, and a new management team with an aggressive disposition for capital spending," as Mr. Coppola observed in his direct testimony on re-opening. AG Ex. 4.0 at 26. An updated Kiefner Study or ZEI analysis can provide critical insight on whether those studies' respective conclusions are still valid or if circumstances have changed and safety concerns require or permit a different approach. In short, there is no rational reason for not seeking updated safety-related information about a project of this magnitude.

(iv) CUB's Position

CUB advocates that the Commission should direct PGL to conduct an updated engineering study upon conclusion of this docket.

(v) City's Position

The City considered the record evidence and arguments supporting the proposed language below in its discussion of appropriate Commission actions to protect service affordability, its most consequential context.

Staff and PGL argue that any such system study should be delayed to allow PGL to prove the efficiency of its revised SMP implementation procedures. However, the critical system assessment that the Commission needs is independent of PGL's new implementation approach. An updated system study can proceed while PGL demonstrates its implementation efficiency.

5. Commission Analysis and Conclusion

The Commission supports conducting a new engineering study. The Commission directs Staff to produce a report to the Commission no later than 90 days after the Final Order that includes, but is not limited to, the criteria and timing of the study. The Commission also notes that the cost for any updated engineering study would initially be borne by Peoples Gas but would be recoverable as a rate case expense.

C. Phase II – Other Consultants

- 1. Should the ICC authorize the Staff to engage consultants, under Section 8-102 of the PUA, to: (a) assist Staff with review of the Rider QIP cost reconciliation cases; and/or (b) oversee SMP project management?**

(i) Peoples Gas' Position

Staff proposed that it be given authority to enter into two consulting contracts for three-year terms, with the potential for renewal, to: (1) assist Staff with review of the Rider QIP cost reconciliation cases; and (2) oversee SMP project management. Staff Ex. 4.0 at 24.

With respect to the Rider QIP consultant, Peoples Gas has no objection to this recommendation, and concurs with Staff that the consultant should begin work on the Company's 2016 Rider QIP case (Docket No. 17-0137). Staff Ex. 7.0 at 6-7.

Peoples Gas likewise has no objection to Staff's recommendation concerning a project management consultant. In his rebuttal testimony, Mr. Hesselbach suggested that such a consultant should be engaged in a *review* capacity as opposed to re-auditing SMP processes and procedures. PGL Ex. 7.0 at 8-9. The basis for this suggestion is that Peoples Gas has recently incorporated numerous process, procedure and reporting improvements for the SMP based on Liberty's recommendations. *Id.* Mr. Lounsberry agreed with this recommendation. Staff Ex. 7.0 at 8. Finally, Peoples Gas requests that it be allowed to participate in the preparation of requests for proposals and in choosing the consultant, and recommends that the consultant chosen have significant construction and execution expertise, preferably with current experience managing or assisting with large gas distribution projects. PGL Ex. 7.0 at 9-10; PGL Ex. 11.0 at 17-18.

(ii) Staff's Position

Staff recommends that the Commission order audits of the Company's SMP under authority of Section 8-102 of the PUA, 220 ILCS 5/8-102. Staff requests that the Commission order Staff to: (1) design audits of the Company's SMP that would assist Staff conducting its oversight duties and prudence analysis of (a) the Company's cost recovery of SMP costs through Rider QIP and through general rate cases, and (b) the Company's management of SMP, (2) issue requests for proposals for each audit, (3) hire consulting firms to perform each audit, and (4) provide a project manager to oversee each consulting firms' work. Staff Ex. 4.0 at 2. Staff also seeks a Commission order directing the Company to: (a) pay all consulting fees that the Commission incurs under its contracts for the audits; and (b) cooperate with Staff and the Commission's consultants during the audits to coordinate utility and consultant activities for inspections, interview, responses to information requests, etc. *Id.*

The Rider QIP consultant would begin its work on the Peoples Gas' 2016 QIP expenditures in Docket No. 17-0137. The consultant would review subsequent QIP reconciliation years as well. Staff Ex. 7.0 at 6-7. The Management consultant would serve in a review capacity rather than re-auditing SMP processes and procedures. *Id.* at 7-8. In addition, the management consultant would evaluate appropriate timing of an updated engineering study. *Id.* at 8.

Peoples Gas has no objection to a Rider QIP consultant and concurs with Staff that the consultant should review QIP dockets beginning with the Company's 2016 Rider QIP case. Similarly, Peoples Gas has no objection to Staff's recommendation regarding hiring a SMP management consultant. *Id.* Peoples Gas suggests that the management consultant should be engaged in a review capacity, rather than to re-audit SMP processes, and Mr. Lounsberry agreed. Staff Ex. 7.0 at 8-9.

However, Peoples Gas makes two further requests regarding the hiring of management consultant for SMP. Peoples Gas requests that it be allowed to: (1) participate in the preparation of request for proposals ("RFPs"); and (2) participate in choosing the SMP consultant. Staff opposes Peoples Gas' requests. Peoples Gas's

requests that it be allowed to participate in preparation of RFPs and selection of the consultant should be denied for several reasons.

First, allowing Peoples Gas to participate in this capacity would create an obvious conflict of interest. Peoples Gas has a specific and significant business interest in the way the RFPs will be drafted, because the resulting contracts will involve oversight and review of the Company's activities. Accordingly, Peoples Gas might attempt to influence drafting the RFPs in ways that benefit the Company, or suggest that a certain consultant be retained, or not be retained by the Commission, depending upon its views regarding that consultant. The involvement of Peoples Gas in the preparation of RFPs and selection of a consultant would on its face impact the Commission's regulation of Peoples Gas.

Second, and related, at the Commission, individuals participating in the development, evaluation, and negotiation processes of any procurement governed by the Illinois Procurement Code must sign a "Compliance, Conflict of Interest and Confidentiality Statement" certifying:

... that neither I nor any members of my immediate family have a material, personal, financial or fiduciary interest that would affect my participation in this project.

Compliance, Conflict of Interest, and Confidentiality Statement. Clearly, any person employed by or associated with Peoples Gas would have a material, personal, financial and fiduciary interest and they and Peoples gas could benefit by their participation in the RFP and hiring processes, for the simple and obvious reason that Peoples Gas will be the subject of the consultant's review. Such a conflict precludes them from completing the required certification.

Finally, Section 50-45 of the Procurement Code provides that state officials and employees, including an agency's chief procurement officer, have a duty of confidentiality with respect to information obtained as part of the procurement process. 30 ILCS 500/50-45. Additionally, under Section 50-50 of the Procurement Code such persons are prohibited from using insider information. 30 ILCS 500/50-50. Allowing Peoples Gas employees to participate in the procurement process without requiring them to be subject to those same provisions would compromise the fairness and integrity of the procurement process.

Based upon the forgoing, the Commission should not allow Peoples Gas to participate in the preparation of request for proposals for the consultant, or to participate in the choosing of the consultant.

In addition to Peoples Gas's request that it be involved in the procurement process for the SMP consultant, the Company recommends that the consultant chosen have significant construction and execution expertise, preferably with current experience in managing or assisting large gas distribution projects. Staff understands that any consultant hired by the Commission to review the Company's SMP should have construction and execution expertise preferably with experience managing or assisting with large distribution projects and Staff expects to include this or similar language into the criteria requirements for the consultants.

(iii) Commission Analysis and Conclusion

The Commission authorizes Staff, pursuant to Section 8-102 of the PUA, to enter into two consulting contracts for three-year terms, with the potential for renewal, to identify an independent consultant that will: (1) assist Staff with review of the Rider QIP cost reconciliation cases; and (2) oversee SMP project management.

With respect to the Rider QIP consultant, the consultant should begin its work on the Peoples Gas' 2016 Rider QIP case.

With respect to the SMP project management consultant, the Commission finds that the consultant must be engaged in a review capacity only. The consultant shall not conduct a re-audit of SMP processes and procedures. The consultant must have significant construction and execution expertise, preferably with current experience managing or assisting with large gas distribution projects. The Commission directs Staff to coordinate in the selection of the consultant. The Commission agrees with Staff that to not compromise the fairness and integrity of the procurement process, Peoples Gas should not participate in the preparation of requests for proposals for the consultant and in choosing the consultant.

X. FINDINGS AND ORDERING PARAGRAPHS

The Commission, having considered the entire record herein and being fully advised in the premises, is of the opinion and finds that:

- (1) Peoples Gas is an Illinois corporation engaged in the transportation, purchase, storage, distribution, and sale of natural gas to the public in Illinois and is therefore a public utility as defined in Section 3-105 of the PUA;
- (2) the Commission has jurisdiction over Peoples Gas and the subject matter herein;
- (3) the recitals of fact and conclusions of law reached in the prefatory portion of this Order are supported by the evidence of record and are hereby adopted as findings of fact and conclusions of law;
- (4) Peoples Gas has properly prioritized public safety in designing the SMP;
- (5) the SMP is responsive to PHMSA's Call to Action to gas utilities across the country to upgrade their at-risk mains;
- (6) the SMP is reasonably designed to address high-risk pipe to ensure Peoples Gas serves its customers with a safe, reliable, and efficient gas delivery system;
- (7) it was appropriate for Staff, Peoples Gas, and the other parties to focus on the following SMP elements in this docket, and to define the scope of the SMP to consist of: (1) the replacement of leak-prone CI/DI pipe; (2) increasing system pressure from low to medium; and (3) relocating meters from inside to outside customers' premises;
- (8) Peoples Gas is directed to continue to coordinate its work with the City;

- (9) Section 9-220.3 of the PUA establishes the level of rate recovery for SMP through Rider QIP and other QIP-eligible capital work and does not authorize the Commission to establish an alternative level of rate recovery;
- (10) Peoples Gas has complied with the provisions of the Commission's Initiating and Interim Order directing Peoples Gas to file a preliminary report and monthly reports;
- (11) the metrics and data listed in Appendix A of Peoples Gas' Initial Brief, along with the five (5) metrics recommended by the AG in its Initial Brief, are approved in this Order and will provide the Commission, Staff and other Stakeholders with information relevant to its oversight of the SMP and quarterly reporting (except for weather-normalized leak data) is an appropriate reporting frequency;
- (12) a target end date of 2035 to 2040 for the SMP is consistent with the recommendations contained in the 2007 Kiefner Study, and allows for a reasonable pace of work and coordination among Peoples Gas, the City, and other third parties;
- (13) Staff is directed to work with the parties to establish additional metrics that are necessary to evaluate the rate impact of the SMP and to file them no later than 60 days after the Final Order in this docket and Peoples Gas will begin reporting on the agreed metrics in the next quarterly report following the filing of the metrics;
- (14) The Commission directs Staff to produce a report to the Commission no later than 90 days after the Final Order that includes, but is not limited to, the criteria and timing of the engineering study.
- (15) Staff is directed to initiate the search for 2 consultants under Section 8-102 of the PUA to assist Staff with review of Rider QIP cost reconciliation cases and/ or oversee project SMP management; and
- (16) all motions, petitions, objections or other matters in this proceeding that remain undisposed of should be disposed of consistent with the conclusions herein.

IT IS THEREFORE ORDERED by the Illinois Commerce Commission that The Peoples Gas Light and Coke Company is authorized to continue its System Modernization Program.

IT IS FURTHER ORDERED that The Peoples Gas Light and Coke Company's rolling, three-year plan as presented in PGL Exhibit 1.2 and modified by Staff Exhibit 2.1 is hereby approved.

IT IS FURTHER ORDERED that The Peoples Gas Light and Coke Company's shall submit an annual compliance filing of its "refreshed" rolling, three-year plan, updating as necessary the plan presented in PGL Exhibit 1.2 and modified by Staff Exhibit 2.1.

IT IS FURTHER ORDERED that The Peoples Gas Light and Coke Company's neighborhood approach to planning is hereby approved.

IT IS FURTHER ORDERED that The Peoples Gas Light and Coke Company's risk-ranking methodology for mains replacement is hereby approved.

IT IS FURTHER ORDERED that The Peoples Gas Light and Coke Company's recommended target end date of 2035-2040 for the SMP is hereby approved.

IT IS FURTHER ORDERED that, with the report for the month ended December 31, 2017, The Peoples Gas Light and Coke Company is relieved of its obligation to file the monthly reports described in the Illinois Commerce Commission's Initiating and Interim Order.

IT IS FURTHER ORDERED that, beginning with the quarter ending March 31, 2018, The Peoples Gas Light and Coke Company must file with the Illinois Commerce Commission a quarterly report containing those metrics listed in Section VI.B.1 of this Order.

IT IS FURTHER ORDERED that such quarterly reports must be filed with the Illinois Commerce Commission, on e-Docket in this docket with a copy submitted to the Illinois Commerce Commission's Director of the Safety and Reliability Division within 45 days from the close of the quarter.

IT IS FURTHER ORDERED that The Peoples Gas Light and Coke Company must report to the Illinois Commerce Commission on weather normalized leak rates on an annual basis as part of its calendar year-end quarterly report.

IT IS FURTHER ORDERED that subject to the provisions of Section 10-113 of the Public Utilities Act and 83 Ill. Adm. Code 200.880, this Order is final; it is not subject to the Administrative Review Law.

By Order of the Commission this 10th day of January, 2018.

(SIGNED) BRIEN SHEAHAN
Chairman